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ABSTRACT

The Individualized Critical Skills Model (ICSM) is an individualized, systematic instructional process that emphasizes teaching severely handicapped learners relevant skills in the environment in which they would naturally occur. The manual is divided into three sections. The first section discusses the historical perspective of the ICSM and gives the rationale and purpose for its development. The second section provides details of the ICSM instructional process. Each of the 10 phases of the ICSM is then covered in one or more chapters. The final section deals with integrating and applying the ICSM approach. The appendix contains blank copies of 29 worksheets used in conjunction with the ICSM, and a glossary of terms. Individual chapters focus on the following topics: conducting interviews with "significant others," targeting critical activities, determining the student's present level of performance, developing adaptations for participation in critical activities, developing annual and instructional objectives, teacher additions to the instructional process, instructional procedures, keeping records, scheduling and implementing programs, evaluating and modifying programs, evaluating student progress, and putting it all together. (DB)

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TEACHING THAT WORKS:
The Individualized Critical Skills Model

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California State Department of Education, Program, Curriculum, and Training Unit, Special Education Division

TEACHING THAT WORKS:
The Individualized Critical Skills Model

By Kathleen Teague Holowach

California State Department of Education, Program, Curriculum and Training Unit, Special Education Division, 1989

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PREFACE

There are some feelings you will probably grapple with whether you have been teaching for many years or you are anticipating your first teaching experience.

"Am I adequately prepared to teach my students?"

"What will I teach?"

"How will I teach?"

"My students have so many skill deficits. I'm overwhelmed with the number of skills that must be taught."

"How can I possibly fit all that needs to be done into one instructional day?"

"Am I having any significant impact on the quality of my student's life?"

"My job is getting boring. I do the same thing day in and day out."

"How long do I teach 'readiness' to my students? We've been at this for four years!"

These feelings spring up even when we work directly with our students: "Why am I still trying to teach Kerry to tie her shoes—it's been two years and she still doesn't do it;" "I'm teaching Robert to count to 100 by 5s, but I really can't see what impact that has on the quality of his life;" or "What am I supposed to teach John? He can barely hold his head up and has limited use of only one arm?"

The questions, self-doubts and anxieties can be endless. On top of that, there seems to be an internal urgency that demand resolution *now*! Questioning what and how you teach is natural and shows that you are concerned about the personal welfare of your students and about your own professional integrity. Unfortunately, many of these questions go unanswered.

One result of trying to develop effective instruction is that teachers easily get caught in what *could be* important for their students to learn, instead of what *will be* important. Unfortunately, given the learning characteristics of individuals with severe handicaps, educators cannot squander time teaching functional skills that may or may not allow the student to participate more fully in a variety of least restrictive environments. From my own experience and the shared experience of others it is evident that many, many instructional hours have been wasted teaching students "functional" skills that had little or no impact on their present or future lives. How many teachers have taught students to make toast at school when they were never required to do so at home? In one instance a teacher taught his student for two years the vocational skill of cleaning restrooms at a service station. Regrettably, this teacher did not know that the student's parents owned a dry-cleaning plant and intended to hire him when he finished school. Many community intensive programs have routinely taught the use of public transportation systems, even though it is unlikely that students will access themselves to this system in their adult lives. The teachers described in these instances weren't intentionally negligent, but the uselessness of the instruction they offered was tragic.

One cannot fault the philosophical orientation of these teachers. Teaching adult-validated, practical skills is certainly reflective of current trends in curriculum for students with severe handicaps. What was lacking in these instances is the technology and process to specifically identify which adult-validated, practical skills should be taught.

The Individual Critical Skills Model (an individualized, systematic instructional process that emphasizes teaching relevant skills in the environment in which they occur) provides a system that serves the needs of students and care providers, instead of serving the needs of schools and bureaucracies. Its value is that it starts from the student as a real individual and assists the same student to become a more effective participant in the world considered most real and meaningful by the student and significant others. The liberating aspect of the Individualized Critical Skills Model (ICSM) for many students, parents, and teachers who have worked with it, is that it allows the student to discover just how close at hand the real world is.

ACKNOWLEDGMENTS

This manual represents the efforts of many people throughout the state of California and across the United States who have committed themselves to improving the quality of education and the quality of lives of individuals with severe handicaps. I specifically would like to acknowledge:

- The continued and growing support that the Program, Curriculum and Training Unit of the Special Education Division, California State Department of Education has given to the improvement of the quality of services being delivered to students with severe handicaps. Especially acknowledged is Jeff Cohen formerly of the Special Education Division for his vision and dedication to excellence in this area.

- Those involved with developing severely handicapped training materials for the California State Department of Education since the early 1970s whose names include Anne Donnellan (Walsh), Lon Gossage, Jan Traphagen, Jacki Anderson, Jacki Nelson, Susan Beckstead, Diane Pescherra, Steve Savage, Kate Berry, Dayle Taresh, Hester St. John, Barbara Bellman and Educational Specialists Gayle Patterson, Jerry Ford, Tom Neary, Lynn Smithey, Bill Rosenberg, Barbara Ryan, Alice Wershing, and Susan White and Abby Deschapelles.

- The Educational Specialists and Demonstration Classroom Teachers throughout the state of California who have contributed to the evolution of the ICSM and trained hundreds of teachers in its use.

- The manual review panel participants; Gayle Patterson, Jerry Ford, Jacki Anderson, Jean Daily, Nancy Batterman, and Amy Rogers.

- The personal and professional support I have received from my friends and colleagues Liz West, Dayle Taresh and Gayle Patterson.

- The growing body of work from researchers and contributors to the field—for it is only through this sharing and evolving that we can adequately meet the needs of those who have entrusted us with the quality of their lives.

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- My husband Gary and our daughters Lindsay and Courtney for the joy they bring me daily.

- And finally, the students and their families who have shown us what we needed to learn.

Kathleen Teague Holowach

DEDICATION

To Steve Savage: Mentor, colleague, and friend.
His vision and caring are represented on each page of this work.

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INTRODUCTION

Since the early 1970s, professionals in the field of special education have realized the importance of teaching students with severe handicaps those skills necessary—that is, critical—for fuller participation in environments that have not been specifically structured to fit their needs. Currently, more and more educators are adopting curricular approaches that emphasize critical skills and natural environments. The enthusiasm of this ground swell movement is contagious. Parents and professionals alike are seeking the information and skills they need to systematically and efficiently implement a critical skills approach to curriculum development.

To meet this demand, the Individualized Critical Skills Model (ICSM) was developed in 1981 by Dr. Steven Savage and the Training and Resource Group (TRG) of the Special Education Resource Network (SERN). The TRG (currently Training and Resources for Community and Curriculum Integration), which is supported by the California State Department of Education, Special Education Division, designed the ICSM as a comprehensive training program to provide the information and techniques a person would need to develop a critical skills curriculum.

Because of the popularity of the ICSM and the numerous requests for additional information regarding its content, the Program, Curriculum and Training Unit of the Special Education Division has supported the development of this manual which is a compilation of the information presented in the ICSM training as well as descriptions of current best practices and quality indicators of exemplary educational programs.

This manual is designed to provide preservice and inservice teachers, administrators and parents with guidelines for the quality delivery of services to students with severe handicaps. It is also designed to serve as reference and support material to those who have received ICSM training and are presently implementing a critical skills model.

This manual is divided into three sections. The first section discusses the historical perspective of the ICSM and gives the rationale and purpose for its development. The second section discusses, in detail, the ICSM Systematic Instructional Process. Each of the ten phases of the ICSM is covered in one or more separate chapters. The final section is titled "Putting It All Together" and deals with just that—integrating all the information presented in the ICSM and applying it in a useful, relevant way. The appendix contains blank copies of all worksheets used in conjunction with the ICSM and a glossary of terms.

Like all instructional models, the ICSM represents the evolution of theory and practice, combining established philosophies with its own unique features. The ICSM, too, is evolving. Each person that uses it will add his or her own personal mark and relate that interpretation to co-workers, students and community members. The developers of the ICSM consider their contribution to be one of building on and adding to the existing body of knowledge that serves as both a resource and springboard for future growth.

Those of us involved with the ICSM recognize the breadth of information we have attempted to cover in fourteen short chapters. We in no way imply that everything you need to know is contained within these covers. Inservice training is available to assist educational agencies in making the systems change necessary when implementing the ICSM. Training for educational agencies can be provided by an educational specialist through Training and Resources for Community and Curriculum Integration (TRCCI). To access TRCCI services, please contact Abby Deschapelles, Program Manager, at (916) 442-3845.

We do hope this manual provides a framework in a straightforward, easy to understand manner for planning and implementing a critical skills approach to curriculum development. We hope to spark your enthusiasm and tap your creativity, for we intend this truly to be a springboard for your own teaching style. As with all manuals and books of this sort, consider this a working draft. One which can be improved and refined with the ideas and modifications of those who put it to use.

The final chapter of the manual discusses strategies for making and surviving change. You may wish to periodically refer to it as you read your way through the manual and consider implementing the ICSM in your own program.

We salute you for your interest and dedication to your professional growth and to improving the quality of life for your students and their families.

Section I

Section I discusses traditional curriculum models, and the frustrations many parents and educators have felt using these models. The ICSM is presented as an alternative to existing curriculum models.

CHAPTER 1

THE WHYS AND WHEREFORES OF THE ICSM

The Criterion of the Least Dangerous Assumption— *This criterion or standard asserts that in the absence of conclusive data educational decisions should be based on assumptions which, if incorrect, will have the least dangerous effect on the student. This criterion can be utilized to evaluate educational practices for a wide variety of student populations along many dimensions.*

Donnellan, (1984, p. 142)

...the mandate for the next decade is to provide teachers with the tools with which to educate severely handicapped persons alongside their nonhandicapped peers on public school campuses and in the mainstream of the community. The model for this decade cannot continue to be an analysis based upon discrepancy with normal development, but must rather be an environmental analysis that promotes reciprocal adaptation: natural environments accommodate the special needs of severely handicapped students as students learn to perform successfully in those adapted environments.

Sailor et al, (1980, p. xiv)

CHAPTER 1
THE WHYS AND WHEREFORES OF THE ICSM

WHAT SHOULD I TEACH?

For those of us who provide instruction to individuals with severe handicaps, the primary question is always the same. Whether we are parents or professionals—and despite best intentions or past education—each of us has asked this lonely question: "What should I teach?" We want to provide quality instruction— to avoid mere maintenance or baby-sitting—and to make the most of every instructional day, so we struggle with choosing appropriate educational goals.

Consequently, there has been an ever-increasing interest in "curriculum development," with no lack of systems and models from which to choose. Their remarkable diversity should come as no surprise. Expectations regarding the learning potential of individuals with handicaps have evolved and changed over the last two decades. So have the ways educators have chosen to teach.

Changing Direction

Existing curriculum models fail to provide such information. The Individualized Critical Skills Model (ICSM) developed to address this need is a proven, viable alternative to either the Developmental or the Remedial Skills Models.

The ICSM in Action

The ICSM was developed in 1981 (see Introduction for more details), and has a sizable record behind it. As of June of 1989 almost 1,350 people had been trained in ICSM programs, an estimated 18,200 students are now being taught under ICSM-developed curricula, and professionals in over 66 school districts and service agencies had taken the ICSM training.

Professionals throughout the state have reported their enthusiasm about the ICSM. "The ICSM has radically changed the way we teach our students. All of my teachers and assistants have participated in the ICSM training. The benefits to our students and our staff are overwhelming," comments a special education administrator for a large rural school district. "The best thing that has happened to my teaching in the last several years has been the addition of the Significant Other Interview. I now feel confident in what I teach my students. Instead of only guessing what will be important for them, now I know. The ICSM has given me some very valuable teaching tools," says a teacher of secondary students.

"I am very grateful for the skills the ICSM training has taught me. I am currently training my staff in the things I have learned. We're seeing a marked difference in our students and ourselves. The parents have also commented on the difference. Thank you, ICSM," enthuses an adult service provider in a large metropolitan area.

ICSM trainers advocate an "each one teach one" philosophy, so that individuals who have been trained in the ICSM actively pass on the knowledge and skills they have learned. This strategy has been particularly effective as evidenced by the emergence of ICSM task forces statewide that serve as professional support groups within districts and agencies. The adaptability of the model to a variety of teaching and service providing situations has benefited innumerable professionals, students and their families.

A Historical Perspective

The 1960s were the years of teaching technology; applied behavior analysis was in its heyday. Teachers learned they could teach almost anything if they could break the task down into small components or behaviors and control as many contingencies (antecedents and consequences) as possible. These contingencies frequently included isolated learning stalls and terse requests or instructions, followed by terse praise and a small piece of edible reinforcer given to the student for each correct response. Such methods may seem harsh or mechanical. However, through widespread use in applied settings, and with appropriate feedback and modification, effective and ethically sound teaching techniques emerged.

The 1970s saw a switch of emphasis from "how to teach" to "what to teach." Educators realized that by using the technology developed in the 1960s, areas of instruction previously deemed too complex or too difficult were now within the grasp of students with

severe handicaps. Brown and his colleagues (Brown et al, 1976) started an education revolution with the "Criterion of Ultimate Functioning" as their battle cry. Their banner waving led instructors to critically evaluate the previously unquestioned efficacy of teaching tasks and skills not normally required in adult daily life. Professionals began asking themselves why they were teaching students to match colors, count by fives, and put pegs in peg boards. In addition, teachers started to become concerned about the likelihood of transference of skill mastery from classroom settings to home and community locations. ("Will Cecelia be able to brush her teeth at home as well as she does at the grooming table in the classroom?")

After adopting the standard of the criterion of ultimate functioning for determining what to teach, the next logical question became "where to teach." The late 1970s and early 1980s saw the beginning of zero exclusion (students could not be denied access to educational environments because of handicapping conditions) and community-based instruction for learners with severe handicaps.

The ICSM Answer

This chapter began with the question, "What should I teach?" Like most of the earlier attempts to answer that question, the ICSM is a product of its time. Fortunately, however, its creators could reap the benefit of all the years of work in this field up to the present day. Readers will have to judge the obvious bias of this book—that the ICSM provides a better, more comprehensive, more flexible answer—for themselves.

In the rest of this chapter, we will look at recent curriculum development as the background against which the ICSM was created, the rationale and purpose of the ICSM, and the system behind the ICSM instructional process.

TRADITIONAL MODELS OF CURRICULUM

Until the early 1980s, two curricular models dominated the field of educating individuals with severe handicaps: the Developmental Model and the Remedial/Functional Skills Model.

The Developmental Model

Educators who adhere to the Developmental Model believe that all individuals grow and develop in a predictable sequence of developmental stages or milestones. According to this model, each milestone is a prerequisite for a higher order milestones, and "normal" children learn these milestones in a sequential order within approximately the same age range.

This philosophy holds that all children, regardless of age or handicapping condition, must follow the same sequence as specified for nonhandicapped children. Students are typically referred to in terms of M.A. (mental age), the developmental level of the individual, as opposed to their actual chronological age. Thus we often hear labels like "developmentally delayed," "developmentally disabled," or "low-functioning."

Curriculum areas often associated with the Developmental Model include:

1. Language
2. Perceptual/Fine-Motor
3. Social/Emotional
4. Cognitive
5. Self-Help
6. Gross-Motor

Curriculum designers following the Developmental Model determine where the student is within each of the sequences and design instruction which will move the student to the next higher level or stage.

Two aspects make the Developmental Model attractive to some teachers. First, materials showing how young children develop, such as checklists and developmental scales are readily available. Second, because developmental scales begin at a zero or near zero level, the Developmental Model immediately

provides educators with tools to assess the program needs of students who demonstrate very few skills.

The Remedial/Functional Skills Model

Proponents of a Remedial/Functional Skills Model believe that there are certain skills, regardless of the mental or chronological age of a student, that constitute "normal" behavior. The instructional focus is on teaching adult validated, functional skills (those skills a nonhandicapped adult might perform in daily life). Individuals with handicapping conditions are thus by definition "deficit" in many of the skills demanded in daily life activities. Therefore, the job of the educator who uses this model is to determine the student's deficits and to design instructional programs to remedy them.

How skill deficits are identified has changed over the years. Currently, educators use either a *checklist*—listing of the skills expected of normal individuals—or *a personal concept of normal capability*—against which they inventory the skills that students lack. If we believe, for example, that "tying shoes" is a normal, functional skill, we will probably teach our students to tie shoes. If we believe that "using a napkin" is an appropriate skill, then we will teach our students to do so. This approach of determining skill deficits as targets for remediation greatly depends on our personal ideologies as to what constitutes a "normal skill."

Curriculum areas often associated with the Remedial Skills Model include:

1. Language/Communication
2. Self-Help
3. Domestic
4. Community
5. Vocational/Pre-Vocational
6. Recreational/Leisure
7. Interaction with Nonhandicapped

Many aspects of the Remedial/Functional Skills Model are attractive to educators. The model is easily understood, and because everyone has a concept of "normality," then everyone can conceptualize which remedies, if successful, would allow the student to function at a higher level of independence in specific environments. Those who support the use of this model feel that if appropriate remediation is employed, students will gain "normal-like" skills. Also, numerous checklists and curriculum guides are available that contain lists upon lists of functional skills and that tell educators not only what skills to teach, but how to teach them.

CONCERNS WITH TRADITIONAL CURRICULUM MODELS

While there are attractive aspects to the Developmental and Remedial/Functional Skills models, there are still major concerns associated with their use.

Let's look again at the Developmental Model. It assumes that all individuals, including individuals with severe handicaps, follow the same patterns of normal growth and development. Is this assumption valid? Just because most nonhandicapped individuals acquire skills in a particular sequence, it does not necessarily follow that an individual *must* acquire skills in the same sequence (one can learn to walk without learning to crawl!). The Developmental Model also assumes that students, despite severe learning difficulties, will be able to learn isolated skills out of any meaningful content and then will synthesize and integrate these discrete skills for use at the appropriate time in the appropriate situation. Research does not bear out these assumptions.

The Developmental Model frustrates many educators who adopt it, because the skills learned with this model neither prepare the student for adulthood nor facilitate later acquisition of more relevant skills. Students may learn to match shapes or roll a ball three feet, but the acquired skill does not allow the student to participate more fully in the home or community.

Because the curriculum areas of the Developmental Model are taught separately, students of a developmental curriculum are rarely given the opportunity to synthesize and integrate skills. For example, the daily schedule of classroom events divides activities into gross motor time, language time, perceptual motor time, and so on. In such cases, we say that the curriculum areas *cut across* activities where segments of the activity may be taught at separate times (for example, buying a cola at a fast-food restaurant involves communication skills, gross and fine motor skills, social skills and cognitive skills).

Let's look again also at the Remedial/Functional Skills Model. It assumes that the exhibition of specific functional skills earns the student participation in the environment. It also assumes that teachers and other educational personnel know what activities are best

for the student to learn. Practical experience, as we shall see in a moment, calls these assumptions into question.

When checklists and personal ideology determine skill deficits, the likely result is a "fixed" curriculum. The unique needs of students cannot be met while the majority of students learn to tie shoes, to use sign language or to fold towels.

Many parents and educators believe the Remedial/Functional Skills approach relies too heavily on the teacher's perception of what the student needs to learn. Even though the student has the skills to participate in an activity, it may not be an activity deemed important by the significant adults in the student's life. It becomes clear that if parents and guardians are not actively involved in the entire process of selecting curriculum targets, the student may acquire a set of skills that are certainly adult-validated and therefore "functional," but that have little or no impact on the student's present or future life.

THE ICSM AS A PROVEN ALTERNATIVE

It is essential that all skills targeted for instruction be carefully selected by the educator(s), parents and guardians, and the student (where appropriate) to ensure that the student learns skills specifically relevant to his or her present and future needs.

Essential Characteristics of the ICSM

The ICSM provides educational personnel and parents with a philosophical orientation and concrete, recommended guidelines that assist in designing, implementing and evaluating instructional programs that maximize each student's independence in present and future natural environments.

The essential characteristics of the ICSM are believed to be quality indicators for exemplary service delivery models. These indicators are:

1. **Individualized, relevant instructional programs for students.** The curriculum content for each student is based on the specific needs of the student as determined by significant individuals, requirements of specified environments and the student's present level of performance. Individualized critical activities are determined for each student through an assessment process called *Student/Environmental Assessments*.

2. **Referencing to the local community.** The ICSM identifies and teaches activities necessary for each student to participate in the present and future *local* environments. The local environment often becomes the *content* and the *place* of instruction.

3. **Orientation to the future.** Unlike the traditional curriculum development models, the ICSM examines and analyzes the possible potential environments in which each student may participate in the future. The critical skills expected in those environments are systematically determined. The ICSM asks parents and educators to look into the future for three years. Not only is this time frame manageable from an intellectual and pragmatic view, but correlates with the Individualized Education Program (IEP) process of three-year reviews as well as facilitating transition planning.

4. **Delineation of chronological age-appropriate critical activities.** The ICSM helps educational personnel and parents to determine chronological age-appropriate critical activities based on observation of non-handicapped age peers.

5. **Comprehensiveness.** The ICSM examines the critical activities needed by each student to function as independently as possible in a wide variety of future environments by using four curriculum domains:

   The domestic domain includes all possible activities which take place where the student presently lives or will likely live in the future.

   The vocational domain includes all activities in vocational environments. This domain also includes for younger students general work behaviors such as taking out trash, putting away toys and cleaning room.

   The recreational or leisure domain includes all activities that an individual may use to occupy his or her time in the domestic or general community environment.

   The general community domain includes all age-appropriate activities in which individuals shop, recreate, use public transportation, eat, walk and receive services (doctor, dentist and so on).

6. **Incorporation of each student's instructional needs in basic skills.** In addition to focusing on critical activities, ICSM instructional programs incorporate the student's instructional needs in the basic skills of motor, social, cognitive, communication and activity performance. Basic skills are taught within the context of a critical activitiy, *not* in isolation. The ICSM also considers the learning characteristics of each student in the design of instructional programs.

7. **Zero-inferencing.** No assumptions are made within the ICSM regarding generalization of student performance across environments, people and materials. There are no assumptions made about what to teach or where to teach it. If it is determined that a critical skill for a student is to act appropriately in a grocery store, then the student is taught to act appropriately in the store. If it is determined that a critical activity for the student is to play a game with other children in the home, then the student is taught to play the game with the others in the home.

8. **Examination of environmental and activity adaptations to ensure greater participation.** Not all students will be able to acquire *all* the skills needed to participate in many environments. Instead of waiting for the student to gain the skills or, in most cases, not allowing the student to participate at all, the ICSM suggests ways to adapt the environment or activity.

9. **Emphasis on the use of natural stimuli, natural consequences, and natural schedules when teaching critial skills.** Rather than use artificial instructional cues ("John, buy a coke") and artificial consequences ("Good John, you bought a coke"), the ICSM focuses on natural stimuli (John has a quarter, wants a coke, and the coke machine is present or nearby) natural consequences (after John buys and opens coke, he drinks it) and natural schedules. (John will buy a coke at break time.)

10. **Use of planned generalizations across activities and environments.** If it is determined through the Student/Environmental Assessment that a student will use a critical skill in more than one environment, the environments are analyzed for natural stimuli, natural consequences and natural schedules to see if any variations of the critical skill are either allowed or demanded. Then the student is taught those variations that allow generalization of the skills to various environments, still within the criteria of zero-inference.

11. **Determination of the effectiveness of instruction by how well the student performs in a wide variety of environments.** Accountability is not measured by the performance of the student in the classroom, but rather by performance in the environments in which the critical skills are required.

12. **Parent or guardian involvement in all phases of the systematic instructional approach.** What is particularly unique to the ICSM is that parents, guardians and care providers help design, implement and evaluate instructional programs for their child. Parents and guardians, as the major significant others in the student's life, assist in the determination of critical activities.

13. **Relationship to the IEP process.** Because the ICSM presents a systematic approach to the development, implementation and evaluation of in-

structional programs, it incorporates the complete Individualized Education Program (IEP) process, which includes determining the present level of performance, developing goals and objectives, determining person responsible, deciding measurement (evaluation) systems and timelines and finally, maximizing interaction with other individuals in least-restrictive environments.

THE ICSM SYSTEMATIC INSTRUCTIONAL PROCESS

Purpose

The purpose of the ICSM Systematic Instructional Process is to provide educators and parents with practical *guidelines* to develop, implement and evaluate instructional programs for students. The instructional programs focus on the skills needed to participate in critical, chronological age-appropriate activities in present and future domestic, vocational, general community and recreational natural environments. The program emphasizes *adaptations* of activities and environments to allow each individual fuller participation in a variety of activities, regardless of the severity of their conditions (for example, one adaptation is a switching device that allows a student to operate a TV by only slightly moving the head).

Structure

The ICSM Systematic Instructional Process consists of nine phases that encompass all aspects of implementing a critical skills, community-based instructional model. (See Figure 1.1) The phases are discussed more fully in later chapters, but they may be briefly described as follows:

1. **Conduct Significant Other Interviews.** The teacher interviews significant others to determine what critical activities they prefer the student to learn in present and future environments.

2. **Target Critical Activities for Instruction.** The teacher targets critical activities that will allow the student greater independence and participation in natural environments.

3. a. **Determine Student's Level of Performance in Targeted Critical Activities.** The teacher determines the student's present skill level in relation to targeted critical activities.

   b. **Determine Student's Instructional Needs in Basic Skills.** When appropriate, the teacher determines the student's needs in basic skills. Basic skills are "general" behaviors that may impact the performance of activities within and across a variety of environments and include motor, communication, cognitive, social and activity performance functions.

4. **Develop Adaptations for Participation in Critical Activities.** Frequently the teacher must develop activities or environmental adaptations which allow the student to participate more fully in targeted critical activities.

5. **Develop Annual and Instructional Infused Objectives.** The teacher develops annual and instructional objectives based on the student's performance in targeted critical activities and "infused" with instructional needs in basic skills.

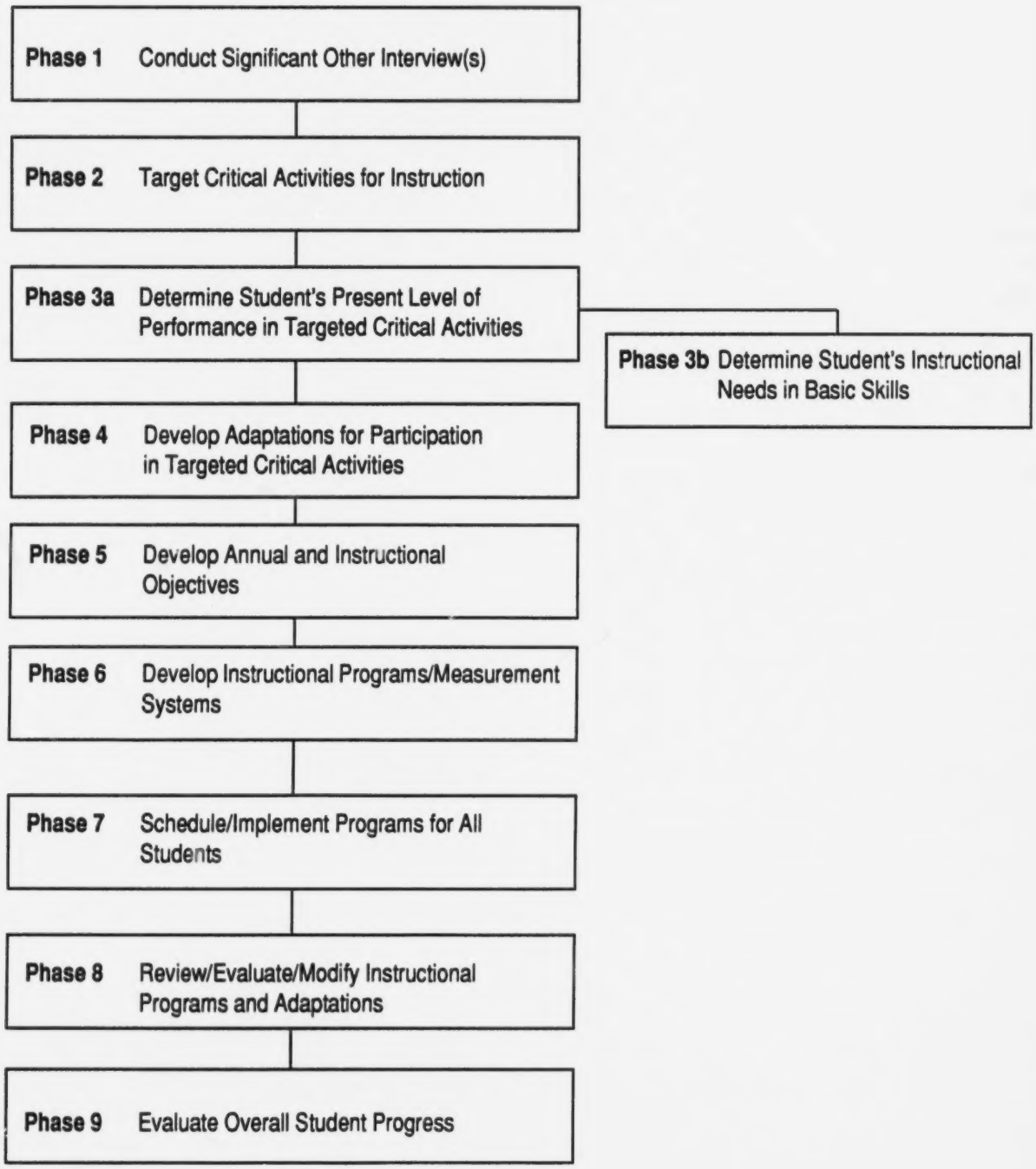
6. **Develop Instructional Programs and Measurement Systems.** The teacher develops instructional programs and accompanying measurement systems to lead to the acquisition and generalization of instructional and annual objectives.

7. **Schedule and Implement Programs for All Students.** The teacher develops a schedule for successful implementation of all instructional programs for all students in class. Then the programs are implemented.

8. **Review, Evaluate, and Modify Instructional Programs and Adaptations.** Instructional programs and adaptations must be systematically evaluated and modified based on the student's performance as determined by data and preferences of significant others.

FIGURE 1.1

Phases of the ICSM Systematic Instructional Process


Phase 1 Conduct Significant Other Interview(s)
Phase 2 Target Critical Activities for Instruction
Phase 3a Determine Student's Present Level of Performance in Targeted Critical Activities
Phase 3b Determine Student's Instructional Needs in Basic Skills
Phase 4 Develop Adaptations for Participation in Targeted Critical Activities
Phase 5 Develop Annual and Instructional Objectives
Phase 6 Develop Instructional Programs/Measurement Systems
Phase 7 Schedule/Implement Programs for All Students
Phase 8 Review/Evaluate/Modify Instructional Programs and Adaptations
Phase 9 Evaluate Overall Student Progress

9. **Evaluate Overall Student Progress.** Overall progress of each student must be periodically evaluated in all curriculum domains and in relation to the needs of the student and significant others.

Definitions

Some terms we have been using have special meanings. To help you better understand the ICSM, definitions of *environments* (present and future), *subenvironments, chronological age-appropriate activities,* and *critical skills* will follow. These definitions are based on the work of numerous theorists, researchers, and practitioners, including Brown and his colleagues at the University of Wisconsin, Sailor at San Francisco State University, Guess at The University of Kansas, and Bellamy and Wilcox at the University of Oregon. Determination of instructional programs based on these definitions is unique to the ICSM, however.

Environments: Environments are the surroundings or places where handicapped and nonhandicapped individuals live, work, shop, play and interact with others. Examples of environments are:

- —a family home
- —an park
- —a group home
- —a factory
- —a bank
- —a clothing store
- —a drug store
- —a theater
- —a bowling alley
- —a golf course
- —a social club room
- —a church
- —a regular school
- —a special school

Natural Environment: Natural environments are places in which nonhandicapped persons choose to live, work, shop, play and interact with others. Individuals with severe handicaps have traditionally not participated in natural environments due to society's values and expectations.

Handicapped-Only Environments: Handicapped-only environments are those places where only handicapped individuals live, work, play, and interact with others. Examples of handicapped-only environments include:

- — a special center/school
- — Special Olympics
- — a social club for the handicapped
- —a group home
- —an institution

Present Environments: Present environments are places where individuals currently participate.

Future Environments: Future environments are natural environments in which individuals *could* live, work, play, shop and interact with others.

Subenvironments: Subenvironments are *areas* or components *within* an environment. For example, the subenvironments of a *theater* include:

- — ticket purchase area
- — seating/viewing area
- — lobby
- — restrooms

Subenvironments of a *home* may include:

- — kitchen
- — bathroom
- — living room
- — bedrooms
- — yard
- — patio
- — garage

Any environment (handicapped-only or natural) could be divided into subenvironments.

Activity: An activity is a set or sequence of skills that takes place in respective subenvironments. An activity describes an outcome. An activity has an effect on the environment or results in a reliable outcome that is functional or beneficial to the individual.

Environment: Home
Subenvironment: Kitchen

Activity	Outcome
1. Preparing meals	1. Able to feed self and possibly others.
2. Eating	2. Able to sustain life.
3. Washing dishes	3. Having clean dishes for next meal.

Environment: Theater
Subenvironment: Lobby

Activity	Outcome
1. Purchase Tickets	1. Able to go into theater.
2. Buying drink, candy, popcorn	2. Able to satisfy thirst, hunger or desire for a snack.

Chronological Age-Appropriate Activities: Chronological age-appropriate activities are those activities performed by nonhandicapped age peers in specific subenvironments and environments. For example, in the *kitchen* subenvironment of the *home* environment, in the activity of *preparing meals*, chronological age-appropriate activities include:

- — For 5- to 7-year-olds, making a peanut butter sandwich or pouring milk;
- — For 8- to 11-year-olds, making sandwiches or baking cookies;
- — For 12- to 14-year-olds, preparing simple meals and making hot chocolate;
- — For 15- to 18-year-olds, planning meals or following recipes.

Skills: Skills are the sequence of behaviors needed to perform or participate in a particular activity. The skills can vary according to individual conditions: the way in which an individual with severe handicaps performs the activity of "washing dishes" may vary considerably from the way another person washes dishes.

Critical Skills: Critical skills are those relevant, essential skills that are deemed important by all the significant individuals in the student's life and that increase the student's participation in chronological age-appropriate activities in present environments and future natural environments where the student will live, work, play and interact with nonhandicapped individuals. Examples of possible critical skills are as follows:

Activity: Eating meals with family members in the home (because the family expressed the desire to have this time together with all family members present).

Activity: Occupying self in leisure activity by watching TV (because the student enjoys particular TV shows and the family wants the student to do this independently).

Activity: Purchasing snack items in the neighborhood convenience store (because the family lives close to the store and expressed the desire that their child do this).

Activity: Eating in fast food restaurant (because the family does this on a weekly basis and they want their child to participate).

Critical skills are not the same as *functional* skills. Critical skills are functional, but not all functional skills are critical. The skill of folding clean towels, for example, is a *functional*, adult-validated skill, and many nonhandicapped adults perform this task on a regular basis. Folding towels, however, is not *critical* unless it has been identified by the student's significant others as being essential and important. (It is certainly possible to live a fulfilled, satisfying life without *ever* folding towels!)

SUMMARY

Whether we are parents or professionals, those of us who work with individuals with severe handicaps have long been concerned with deciding what to teach. Since the early 1970s, there has been much interest in curriculum development. Two major models of curriculum have emerged: the Developmental Model and the Functional/Remedial Skills Model.

Many educators have become frustrated with curriculum models that fail to teach the specific skills which will assist the learner to participate more fully in his or her life. ICSM was developed as a viable alternative to the Developmental and Functional/Remedial Skills Models. The purpose of the ICSM is to provide educators and parents with a systematic approach to develop, implement and evaluate instructional programs 1) to emphasize the critical skills a student needs to participate in chronological age-appropriate activities in present environments and 2) to prepare each individual to participate in a wide variety of future natural environments. The ICSM Systematic Instructional Process consists of nine phases. By working through these phases, educators and care providers develop guidelines to design, implement, and evaluate instructional programs referenced to significant others and the community.

We have learned where the ICSM comes from and what it is about. Next we will look at each of its phases in detail.

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Section II

Section II discusses the nine phases of the ICSM Systematic Instructional Process. Each chapter covers in detail all or part of one phase of the ICSM. Specific instructions for completing the necessary steps to implement a critical skills model are also included. Where required, examples of completed worksheets and guidelines for decision making are provided. The chapters in this section follow the exact sequence of the ICSM.

CHAPTER 2
CONDUCTING SIGNIFICANT OTHER INTERVIEWS: PART I

The criterion of the least dangerous assumption would favor those programs which support a mutually defined parent-professional partnership. Programs which stress realistic and sustained interaction between school and home meet the criterion of the least dangerous assumption while programs which assume that parental involvement is nonessential do not.

Donnellan, (1984, p. 148)

...it is now incumbent upon the schools to include the parent as one of the members of the educational team that approves the educational program and decides on educational placement.

Seligman, (1979, p. x)

Objectives and Priorities. Parents and professionals may have different ideas regarding specific program objectives and their relative importance.

Roos, (1978, p. 43)

CHAPTER 2
CONDUCTING SIGNIFICANT OTHER INTERVIEWS: PART I

A TOOL FOR SETTING GOALS

When deciding what to teach we sometimes feel that our choices are in disarray and that we lack guidelines to help us make the best decisions. We're not comfortable with *guessing* what to teach. How can we know what will truly improve the quality of life for our students?

In practice, teachers often rely (in descending order of importance) on formalized assessments, anecdotal information and records from previous professionals, their own observations and parental input. All too often, parental concerns are not brought into play until just before, or at, the IEP meeting—when anxiety levels for parents and teachers may be high. The formalized structure of the IEP meeting, the necessary paper work, the additional participants (administrators, ancillary staff and so on), the time constraints, and other distractions often inhibit the full exchange of information. Even teachers that have had an opportunity to talk at length with their students' parents prior to the IEP meeting often come away with only a general sense of what to teach, and only three or four major objectives.

The ICSM process for setting goals and objectives is the Significant Other Interview. This interview lets parents and teachers communicate in a systematic, structured format. Each party separately identifies the student's present skill level, perceptions of present need and hopes for the future. Both teachers and parents come away from the interview with a greater understanding of each other and the student who brought them together.

In the rest of this chapter, we will look at the relationship between parents and teachers and discuss various aspects of the Significant Other Interview. (Later, Chapter 3 will introduce worksheets for your use in the interview.)

THE PARENT-TEACHER RELATIONSHIP

Before describing the Significant Other Interview in detail, let's review the parent-teacher relationship. Few would argue against parental involvement in education; however, little effort is being made to engage parents in coordinated educational endeavors (Seligman, 1979). Furthermore, most teacher training programs provide little, if any, opportunity to learn the skills and techniques of effectively conferring with parents (Kroth, 1975). The Significant Other Interview process enhances, and provides a framework for, the parent-teacher relationship.

Improving Our Understanding

Seligman (1979, p. 39) states, "Insights into family dynamics help the teacher make a more realistic appraisal of the exceptional child and his family, their enormous burdens, their coping mechanisms and the strengths that sustain them through crises. Also, such knowledge helps the teacher understand parental reactions that might otherwise appear to be strange, unreasonable and at times incomprehensible." Remember that the parents of our students play many roles besides the one we most often see. Parents of handicapped children are also parents of nonhandicapped children; they are also spouses, workers, children of parents themselves, siblings, neighbors, community members and so on. Even though the strongest link in the parent-teacher relationship is the student/child whose concerns they share, both parties have other concerns and other demands on their time and energies. Remember also that families of handicapped children have made and continue to make many adjustments. Duncan (1977) likens the families' adjustment process to the stages most typical of one's reaction to dying: denial, bargaining, anger, depression and finally, acceptance. Philip Roos (1968), a professional in the field and the parent of an exceptional child himself, identifies six common patterns that parents of exceptional children show: namely, loss of self-esteem, shame, ambivalence, depression, self-sacrifice and defensiveness.

In establishing and maintaining relationships with parents, the teacher should be ever mindful of the complexities of family life. The teacher should view his or her role as one of supportive caring and neutrality. Do caring and neutrality seem like contradictory responses? Teachers care by sharing the common bond of concern for the lifelong well-being of the student, but they still have a job to do. To admit there

is a tension between caring and professionalism should in itself remind the teachers that parents also face unavoidable tensions.

Improving Our Interview Techniques

Teachers can use a number of verbal interview techniques to demonstrate their concern, while still getting the information needed to make the best decisions for the student. These techniques are useful tools in the teacher's repertoire of skills, especially when conducting the Significant Other Interview. A description of these techniques appear in Figure 2.1.

THE ICSM SIGNIFICANT OTHER INTERVIEW

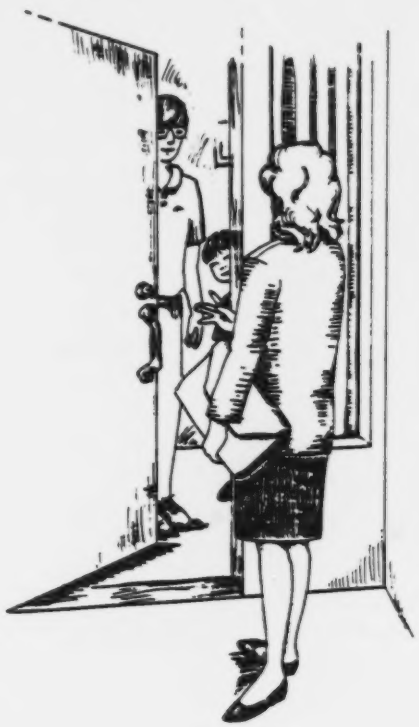
The Significant Other Interview is the single most important phase of the ICSM Systematic Instructional Process. This interview provides the very foundation for curriculum, instructional programming and evaluation for each student. It facilitates productive and caring relationships between parents and teachers. It is the basis for developing instructional objectives and IEPs that truly reflect the most critical needs for each individual student. It also provides a wonderful opportunity to engage the parent as a contributing, committed partner along each phase of the ICSM process. Teachers report that once having used the ICSM Significant Other Interview for determining students' educational needs, they will never go back to less efficient, less accurate and more traditional methods of determining instructional objectives.

Who Are the Significant Others?

Significant others are those individuals outside the school who influence or interact daily with the student and the family of the student. Significant others in a student's life are the parents or the primary care providers and may also include siblings, grandparents, other relatives of the family, friends of the family and nonschool professionals (case workers, doctors, hospital therapists, ministers and so on). Significant others *do not* include educational personnel. Although educators certainly play a significant role in the student's life, that role is often temporary.

Because the parents or care providers are consistently considered significant others in a student's life, and because additional significant others will vary, the Significant Other Interviews have been separated into two categories: Parents' or Care Providers' Interview and Additional Significant Others' Interview. The information from the parents will remain rather consistent, whereas the information from additional significant others, if any, will depend on the type and amount of interaction the individual has with the student and the other family members.

Although it seems obvious as to whom should be interviewed in the Parents' Interviews, this decision becomes complicated when a number of people provide care for a particular student. The following guidelines may help.



Determining Whom Should be Interviewed

1. When a student lives with both natural parents, attempt to conduct the interview when both mother and father can participate. This will allow you to gain information pertaining to the instructional preferences of each parent and to possibly assist in the resolution of conflicts or discrepancies between the mother's and father's perceptions and preferences.

FIGURE 2.1
page 1 of 2

Verbal Interview Techniques

TECHNIQUE	DEFINITION	EXAMPLE
I. Probing		
1. General Leads	Non-specific questions to get interviewee to discuss specific topic-oriented inquires.	"What would you like to see John doing 3 years from now in the area of recreation/leisure?"
2. Follow-Up Leads	Explores details of a particular area and are timed according to the responses of the interviewee.	"Tell me more about how John washes his hands."
3. Continuation Leads	Questions designed to get interviewee to continue talking about a particular set of information.	"You mentioned that you take John with you every place you go. What are some of the specific places that you go together?"
4. Amplification Leads	Interviewer explains and amplifies a particular issue and then gets interviewee to provide additional information.	"One of the major components of the model we are using to design instructional programs for John is 'chronological age-appropriate' activities. The activity of playing with a 'busybox' doesn't seem age-appropriate for John since he is 12 years old. What other activities could he do that would be age-appropriate?"
5. Testing	Statements/questions that the interviewer uses to test out hunches that are emerging in his mind as he experiences the interviewee.	"I sense that you feel really fearful of Mary using the public buses to get to and from her job training."
II. Understanding		
1. Restatement	Simply a replay of the statement the interviewee has just made. It is a repetition in word-for-word fashion of the statement of the person being interviewed.	(NOTE: Use sparingly)

FIGURE 2.1
page 2 of 2

TECHNIQUE	DEFINITION	EXAMPLE
2. Paraphrase	Technique is closely related to restatement, but the significant difference is that understanding is demonstrated by the interviewer's putting into his own words what he is hearing from the interviewee.	"Now, let me see if I understand what you are saying..."
3. Reflection	A 'mirroring' technique in that the interviewer plays back the *feelings* that he believes are being experienced by the interviewee. He responds to both words and the underlying feelings that are being expressed.	"You appear to be sad when you talk about Mary's future."
4. Summarization	Interviewer integrates the set of data from the person being interviewed in the form of brief summaries.	"Let's look over the 'high preference activities' that you've indicated for John's weekday schedule."
III. Supporting		
1. Sharing	Interviewer shares an experience, point of view, or attitude *very* briefly to support the interviewee to continue discussion or let them know that their problems and concerns are shared by others.	"I too feel frustrated at times trying to think of an activity John could engage in during his leisure time, but I feel confident that by working together, we can find some answers."
2. Consoling	Consoling, or sharing one's feelings of concern for the other person. Interviewer wants to help the person being interviewed *to feel better*.	"I'm really concerned about your feelings of not being an adequate parent for John. Being a parent of a severely handicapped child must be extremely difficult at times. Let's look at all of the great things you've done as a parent."
3. Expressing Caring	Interviewing is not a mechanical, impersonal activity and sometimes it is helpful for the interviewer to express whatever caring he feels about the person and the person's situation which he is exploring in the interview.	"I really care about making John more independent and about making your life as a parent easier. I want to acknowledge you for your efforts in caring for John and in the support that you have shown me. Thank you."

2. When a student lives in a residential facility, conduct the interview with the people who are responsible for the primary daily care of the student. In the majority of cases, you will need to interview those individuals who care for the student from the time the student gets up to the time he or she goes to school. If different personnel are involved, you will need to interview those individuals who provide care from the time the student arrives "home" from school to the time he or she goes to bed. If these personnel are from different work shifts, various portions of the interview will need to be conducted with each shift. Make sure that you provide the administrators of the facility with information pertaining to the purpose, structure, and content of the interviews and obtain their approval for conducting the interviews with facility staff.

3. When a student lives in a residential facility part of the time and the natural home part of the time, conduct various portions of the interview with the necessary facility personnel *and* the student's parents. Not all portions of the interview will be relevant to both personnel and parents.

4. When a number of students live in the same residential facility, you may conduct several interviews at one time. The students may either be members of your class or of other classes in your school. You can gather information on daily schedules and weekend activities for all students because in most cases these remain consistent. Information pertaining to instructional preferences will need to be gathered for each student.

Because the Parents' or Care Providers' Interview is central to what you will be teaching, many of the following comments will focus on its specifics.

Purpose of the Interview

The purpose of the Parents' Interview is fourfold:

1. To determine the parents' perceptions of the student's present skill level and instructional needs in basic skills.

2. To determine which activities the student engages in to obtain a general description of the student's performance or level of participation for each activity.

3. To determine which chronological age-appropriate activities and potential environments the parents consider important for the student's future.

4. To determine the parents' preferences for instruction in the activities and environments in which the student presently participates and will participate in the future.

Location of the Interview

If at all possible, conduct the interview where the student lives. The reasons are as follows:

1. The parents or care providers will more likely feel at ease.

2. You will see where the student lives, what demands are placed on him or her and how the parents or care providers handle appropriate and inappropriate behaviors.

3. You will be able to talk with siblings, if any, in an environment in which they feel comfortable.

4. You will be able to identify environments near the student's home in which he or she could participate, now or in the future.

5. You will be able to see specific equipment and facilities that are part of the home (for example, the type of faucets on the bathroom sink, the type of stove or the types of toys). This information will become important if activities or skills requiring that equipment are deemed critical by the parents or care providers.

Most parents will gladly agree to be interviewed in their home. However, if the parents or care providers refuse, then schedule the interview in an environment that will help the parents to feel comfortable and that is near their home (such as a restaurant). Avoid holding the interview at school. School is your environment and one in which many parents or care providers may feel uncomfortable.

Length of the Interview

If you know what information you want, how you will gather it and what sequence you will follow, you should be able to conduct the interview in about one hour. The actual length will depend on your familiarity with conducting interviews and your relationship with the parents or care providers. You should allow enough time to maintain a pace that is comfortable for you and the parents or care providers.

Structure and Content of the Interview

The interview is structured in a number of steps, to be carried out in the following order:

1. Establishing the interview.

2. Conducting the interview.
   a. Introductions and pre-interview discussion.
   b. Information gathering.
   c. Summary of the interview.

3. Following up the interview.

Establishing the interview. In most cases, you will telephone the parents or care providers to set up the interview. Points to cover in this telephone call include: a) the purpose of your call; b) the type of information that you would like to discuss with the parents; c) the purpose of gathering the information; d) the approximate length of the interview and e) the location, date, and time for the interview which is convenient for everyone. If the parents or care providers speak a foreign language, ask if they have someone who can interpret for them, or if they would like you to provide an interpreter (you may, in fact, need an interpreter to establish the interview). Be aware of language and cultural differences and how they can be enriching to the student's life. When talking with any parents or care providers, be sure to use terminology that is familiar to them.

Your manner in establishing the interview will effect the interview itself. If you are comfortable, friendly, courteous and attentive, the parents are likely to respond accordingly. If, however, you appear threatened by the interview, use terminology that the parents may not understand or are unclear as to the purpose of the interview, the parents may be less than willing participants. Ask yourself these questions before contacting the parents: "If my principal were to call me to discuss what I presently do with my students, and what I would like to do in the future, how could she communicate with me so that I would understand what information she wanted—and why she wanted it? How could she communicate the purpose of the visit so that I would look forward to her coming to my classroom?" When interacting with parents or care providers, treat them as you would like someone to treat you.

Conducting the interview. Conduct the Parents' Interview in three parts: a) introductions and pre-interview discussions (the talk that occurs from the time you enter the home until you actually begin to gather information from the parents or care providers); b) information-gathering and c) summary and close.

Introductions and pre-interview discussions allow you to:

1. Establish rapport with the parents. If you have had few contacts with the particular parents or care providers, some small talk may make everyone feel more comfortable. Remember, however, that you will want to establish from the beginning that the visit has a specific purpose and that time is important.

2. Reiterate the purpose and sequence of the interview. Explain that you will need to take notes.

3. Discuss the importance of the information and how it will be used to develop instructional programs for the particular student.

The information-gathering part of the interview is designed to elicit the following information:

1. The student's perceived behavior across a number of environments.

2. The weekday and weekend activities the student presently engages in.

3. A description of how the student performs the activities.

4. The parents' desires for and expectations of the student's performance in future activities in natural environments.

5. The activities that the parents or care providers deem critical.

To gather this information, you will probably use a variety of the verbal interviewing techniques that were described earlier in this chapter. The information-gathering part of the interview will be explained in detail in the next chapter (Interview Worksheets).

During this part of the interview, you and the care provider may tend to discuss related issues. Although it may be beneficial for the parents to vent their feelings, this interview is not a counseling session. If the parents need to talk and share their concerns, you may want to schedule *another* meeting for that purpose, or you may help them seek assistance from trained counselors (inside or outside the school). Be sensitive to the parents' concerns and needs at the time. Be flexible enough to stop the interview if there is a great deal of tension or resistance. If the parents do voice concerns about the student, family problems or personal problems, assure them that the information is confidential.

The summary of the interview is a signal to the parents that the discussion has been completed. Review with the parents that relevant information just discussed and reiterate what will be done with it. Acknowledge the parents for sharing their time, observations, and feelings. Tell them you appreciate the opportunity to work with them in planning their child's education.

Following up the interview. The follow-up will most likely be by telephone. Its purpose is to ask the parents if they have anything they would like to add to the information you have gathered, to discuss with them the tentative goals, activities, and environments you have decided to target for instruction, and to negotiate these decisions with the parents or care providers as needed.

SUMMARY

Often parents have been patronized or neglected when performing their role of setting instructional goals for their child. Teachers are encouraged to view parents as complex individuals; adjustments, coping mechanisms and tensions are all a natural part of family life.

The ICSM uses the Significant Other Interview to determine specific areas of need in both present and future environments. Significant others are those individuals outside the school who influence or interact daily with the student and his or her family. Of special importance is the Parents' Interview. The interview allows the teacher to show care and concern and to work with the parents as part of a team. With proper techniques, the teacher should be able to set up the interview in the family's home or other comfortable environment, to conduct the interview (with its introduction, information-gathering, and summary) in about an hour and to follow up the interview.

The next chapter discusses the worksheets that make these jobs easier.

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CHAPTER 3
CONDUCTING SIGNIFICANT OTHER INTERVIEWS: PART II

What's Wrong with These Pictures?

At the school's "Open House," Sharmaine's father told her teacher that he wished she could do some simple meal preparation so that she could feed herself when she was hungry as well as help out with family meals. At the end of the semester Sharmaine's teacher proudly reported to the father that Sharmaine had learned to make four simple meals and several snacks using the microwave oven in the teacher's lounge. He was pleased at the news, but asked if she could learn the same thing on a conventional stove as they did not have a microwave oven at home.

The students in Byron's class had access to a nearby community pool. The Adaptive Physical Education teacher regularly took a group of students to the pool to teach them to swim or engage in water play. Byron did not like the water, nor did his family have a pool or ready access to one. His family did not regularly swim, even during the summer. His family did enjoy bowling and working out at a neighborhood gym. At the end of the school year Byron was still very unhappy at the swimming pool and did not demonstrate any significant gains in swimming skills.

FIGURE 3.1

ICSM Significant Other Interview

	TITLE	PURPOSE
Worksheet 1:	Cover Sheet	To organize and store information about the date, time and location of the interview.
Worksheet 2:	ICSM Community Inventory	To record information about the specific environments that are near the student's home and, therefore, might be used frequently.
Worksheets 3 & 4:	Weekday Schedule	To gather information about the student's "typical" schedule during the week when the student is not in school.
Worksheet 5:	Additional Weekday Schedule	To obtain information on activities that occur in a typical week, but that do not occur daily.
Worksheet 6:	Weekend Activities	To gather information on activities that occur regularly during a typical weekend.
Worksheets 7, 8, & 9:	Behavioral and Basic Skills Information	To provide a series of questions about the student's general behaviors.
Worksheet 10:	Parent/Guardian Preference: Future Activities and Environments	To identify activities for future participation in domestic, recreational/leisure, general community, and vocational environments.
Worksheet 11:	Initial Summary/ Infusion of Basic Skills and Critical Activities in all Curricular Domains	To record and relay a list of basic skills ascertained by Designated Instructional Services (D.I.S.) staff and significant others; to summarize and prioritize high-preference activities identified significant others; to complete an infusion matrix with the significant others; and to make any teacher or staff additions to high-preference activities.
Worksheet 12:	Future Contacts	To record any additional important comments made by the parents; to record name, address and telephone numbers of additional significant others you will need to contact; to record date, time and means of communicating with parents regarding the tentative goals and objectives for the student.
Worksheet 13:	Additional Significant Other Interview	To obtain information about the student from significant individuals in the student's life other than the primary caretakers. This is used only in cases where the student spends either long periods, or consistent periods of time, with the additional significant other.

CHAPTER 3
CONDUCTING SIGNIFICANT OTHER INTERVIEWS: PART II

INTERVIEW WORKSHEETS

Thirteen worksheets have been designed to help you conduct the ICSM Significant Other Interview. (See Figure 3.1.) As you look at each worksheet in turn, you will better understand why the Significant Other Interview is considered to be the foundation of the ICSM process.

Parent or Care Provider Interview

Descriptions and completed examples of the first twelve worksheets follow. Our examples are based on a Parents' Interview completed by a teacher for her student, Philip. Language that refers to parents does so for convenience only; it could as easily read care provider or legal guardian.

CASE STUDY: PHILIP

Philip is an eight-year-old who has been diagnosed as having severe mental retardation and mild athetoid cerebral palsy. Philip has been living with his grandmother for six years. His mother decided, when Philip was two years old, that she could no longer take care of him. Philip's mother has no contact with Philip or his grandmother at this time.

Philip attends, at present, a special segregated school for individuals with severe handicapping conditions. There are ten students in his class, all at approximately the same skill level as Philip. The class has one teacher, Mrs. Jane Blair, and one full-time instructional assistant. The interview lasted one hour and ten minutes.

Cover Sheet

The Cover Sheet is designed to help you to organize and store information about the date, time and location of the interview. It is usually completed prior to the interview. Figure 3.2 provides an example of a Cover Sheet (Worksheet 1) on Philip.

The Cover Sheet is self-explanatory, with the exception, perhaps, of the D.I.S. (Designated Instructional Services) Assessment section. In accordance with federal and State laws, parents must be informed of and consent to any assessment of their child. Parents may ask about the total assessment plan, specific assessment instruments or assessment results; consequently you should know the components of the plan and the status of each assessment. Additionally, a brief review of each assessment, the person responsible and the status of the assessment will help the parents understand how the interview and other assessment information are combined to determine instructional goals and objectives for their child.

ICSM Community Inventory

The inventory worksheet provides a place to record information of the specific environments that are near the student's home and, therefore, might be used frequently. This information will be of use during the interview when the parents are deciding which future activities and environments they would like to see the student participate in. Figure 3.3 presents a completed ICSM Community Inventory (Worksheet 2) for Philip.

To have enough time to complete the community inventory, plan to arrive about twenty minutes before your interview with the parents. (Thus, you should not schedule an interview immediately after school without adding at least 20 minutes to your travel time.) By driving or walking around the student's immediate neighborhood, you will be able to list specific environments, their addresses or locations, and other notes for later use. A general overview of suitable environments is adequate; if an activity within one of the environments is determined to be critical, analysis can come later.

Weekday Schedule

The purpose of the Weekday Schedule is to gather information on the student's "typical" non-school activities during the week, Monday through Friday. Your account will be in two parts: first, from the student's getting up until his or her going to school, and then, from his or her arriving home from

school until going to bed. The following specific information is needed:

1. The student's activities and the usual sequence of those activities.

2. Environments and subenvironments of each activity.

3. Approximate length of time allotted for the activity in the present weekday schedule.

4. Chronological age appropriateness of the activity, materials and environments.

5. Description of the student's performance in the activity as perceived by the parents.

6. Parents' ranking of the activities as to their instructional preferences (high, middle or low preference).

Figure 3.4 presents a completed example of a Weekday Schedule (Monday-Friday) for Philip. Worksheet 3 is always the first page of the schedule; subsequent pages are copies of Worksheet 4.

The following is a detailed description of each area of information to be gathered during this part of the interview.

Activity. The activity should be a clearly delineated cluster of skills that may easily be categorized under one general label. Examples include dressing, preparing and eating breakfast, grooming, watching television, sweeping floor and takingthe bus to work. Do not overly categorize activities. For example, do not list pulling pants down, sitting on toilet, wiping, flushing toilet and pulling pants up as separate activities. These may be skills (components) of an activity which is labeled "toileting." (Each skill will be taken into consideration later.) Gather information on each activity in the natural sequence that the activities follow during a typical day. This organization will not only help you with the interview, but also will help the care providers describe the student's activities before and after school.

Environments and Subenvironments. The environment and subenvironment details the general and specific location(s) of the activity. In the majority of instances, when completing the Weekday Schedule, the environment will be the home; however, in some cases the student may typically participate in other environments. For example, a student may go to a sitter before or after school and the environments would change from home to the sitter's home. Information on the location of the activities becomes essential if the activity is targeted for instruction because:

1. The activity will be taught in the specific natural environment, or

2. It will be taught in a simulated environment, and therefore the relevant characteristics of the environment and subenvironment must be considered, or

3. It will be performed with the assistance of activity, materials or environmental adaptations.

Note the environment and subenvironment where each activity occurs in the respective columns on the worksheet.

Approximate Time. The approximate length of time allotted for the particular activity in the typical weekday schedule becomes critical when the activity is targeted for instruction. If parents are to assist in the acquisition and generalization of the critical activity or skills, they are more likely to do so when the disruption to their present schedule is minimal. For example, if the parents only allot 15 minutes to feed a student breakfast, and eating breakfast is a targeted critical activity, then you know that the student must be able to perform various skills of the activity in approximately a 15-minute time period. The alternative is to ask and possibly assist the parents to rearrange their weekday schedule. This alternative is less desirable; if schedule changes are undertaken by the care providers, the critical skill will need to be highly reinforcing to all involved or the "new" schedule will not be maintained.

The approximate times (6:30-6:45, 6:45-7:05) are noted, not only to determine the length of time allotted for the particular activity, but also to assist you and the parents in detailing the sequence of activities as they occur in the present schedule. Record the approximate time allotted for each activity in the column marked "Approx. Time."

Chronological Age-Appropriate. The chronological age appropriateness is a subjective judgement. You will need to consider the activity, the materials used, and the environments and subenvironments where the activity occurs. There may be a number of obvious instances of nonchronological age-appropri-

FIGURE 3.2
WORKSHEET 1

Parent/Care Provider Interview Coversheet

Student: Philip

Birthdate: 10/7/78

Address: Poppy St.

Directions to place of interview: Hwy 44 w, 2nd St, exit; left at market yellow house on right

Phone: _____
Home Work

Parent/Care Provider Name: Joyce Car

Significant Others: _____

Interview Date: 2/4/89

Interviewers: A Teague

D.I.S. Assessment:

A.P.E.: Conducting functional assessment of motor skills

Psychologist: Brigance

Speech: Conducting functional assessment of language

Other: _____

Medical Considerations: seizures - eye blinking, petit mal

Additional Services Providers (Regional Center, CCS, etc.): CCS. Pam Waters (PT) & Corinda Stone (OT)

FIGURE 3.3
WORKSHEET 2
(Before and After Interview)

ICSM COMMUNITY INVENTORY

Domain: Recreation / Leisure
Environment: County Park
Address: Poppy & 3rd St.
Telephone:
Transportation: stop signs / walking
Inventoried by:
Date:
Contact Person:
General Notes: large park
play equipment, rec. center

ICSM COMMUNITY INVENTORY

Domain: Community
Environment: 7-11
Address: Poppy & 2nd St
Telephone:
Transportation: stop signs / walking
Inventoried by: S. Read
Date: 1/11/84
Contact Person:
General Notes: convenience store – video games, slurpies

ICSM COMMUNITY INVENTORY

Domain: Community
Environment: Shopping Mall / Theater
Address: 6 blocks away on 2nd St.
Telephone:
Transportation: busy intersections
Inventoried by:
Date:
Contact Person:
General Notes: large mall - tri plex
theater

FIGURE 3.4
WORKSHEET 3

Weekday Schedule

Student: Philip

List information from the time the student gets up and goes to school to arrives home from school and goes to bed.

Envir.	Sub-Envir.	Activity	Approx. Time	C. A. App.	Description of Student's Performance in Activity	Pref. H,M,L	Comments
Home	grandmother's house	getting up	6:30	no	Sleeps in her bedroom - in crib. Puts sides of crib down, lifts him out and puts in wheelchair.	L	She likes to be "near" him at night - start talking about if it were really necessary for him to be in the same room.
Home	bathroom	toileting	6:35-6:55	?	Takes out of wheelchair, places him in a potty seat - sits for 20 min. Trying to get him on a schedule.	H	Takes off his diaper (always wet) from the night, puts him on the floor to wipe him off & put on clean diaper. H- schedule only
Home	bathroom	dressing	6:55-7:05	Y	While on floor puts pants, socks & shoes on. Puts him in wheelchair - puts shirt on. Can push arm through sleeve with help - can pull over head, but takes a long time.	H	Helps dress self more!
Home	kitchen	eating	7:10-7:30	Y	Put lap board on chair. Eats regular food but she mashes it up. Uses regular spoon & plate. Tries to hold spoon but she assists in holding & getting it to mouth.	H	A lot of food spills when she lets him try - she has to wipe his face a lot.

FIGURE 3.4 continued
WORKSHEET 4

Weekday Schedule (con't)

Envir.	Sub-Envir.	Activity	Approx. Time	C. A. App.	Description of Student's Performance in Activity	Pref. H,M,L	Comments
Home	bathroom	grooming	7:30 - 7:45	Y	She brushes his teeth & combs his hair.	L	Dentist said not to use toothbrush.
Home	livingroom	waiting for bus	7:45 - 8:00	Y	She has a cup of coffe, bus aide comes to door & wheels Philip to bus — Philip sits and waits — looks out window	L	leisure activity?
					SCHOOL		
Home		arriving home from school	about 4:15	Y	Aide brings Philip to door in wheelchair - they chat for a few minutes.	—	
Home	bathroom	toileting	4:15 - 4:30	Y	Takes wheelchair to bathroom, put Philip on floor, pulls pants down, removes diaper, sits on potty seat, leaves for abt. 10 min - puts on clean diaper & puts back in chair.	H	Potty chair age - appropriate. Would like to get seat modify so he can sit on a regular toilet.

AA

A5

FIGURE 3.4 continued
WORKSHEET 4

Weekday Schedule (con't)

Envir.	Sub-Envir.	Activity	Approx. Time	C. A. App.	Description of Student's Performance in Activity	Pref. H,M,L	Comments
Home	livingroom or kitchen	playing with busybox pillow boat	4:30-5:45	N N Y	Puts one object at a time on wheelchair tray. Likes to hit pillow.	H	She realizes busybox and pillow aren't appropriate – but "he's played with them for years."
Home	kitchen	eating dinner	5:45-6:15	Y	Same as other eating times. Attempts to hold glass, but unable to.	H	
Home	living-room	playing or watching TV	6:15-8:00	N Y	Same as leisure activities before. Likes to pound on his tray.	L	
Home	bathroom	getting ready for bed	8:00-8:15	Y	Bathroom routine again – on floor, takes clothes off, put on potty, on PJs – puts in crib.		

ate activities, materials and environments (for example, an 18-year-old interacting only with nonhandicapped 6- to 9-year-olds; a 9-year-old playing with a "busy box;" a 14-year-old swinging in the "kiddy" playground). Other instances may not be as easily decided (such as a small 10-year-old child with cerebral palsy using a potty chair; a 14-year-old eating baby food because of his inability to chew; a 6-year-old in diapers because she is not toilet or schedule trained). Note your judgement by indicating yes (Y) or no (N) in the "C. A.-App." column of the worksheet.

Description of the Student Performance in the Activity. Find out how the student performs the various cluster of skills in each activity by asking the parents or care providers. Make sure the parents understand the type of information you want: You need to find out what level and type of assistance others must provide for the student to engage in the activity. If the student performs the activity—or any specific skills of the activity—independently, you should note that as well. This part of the interview is based solely on the parents' description of the student's performance, *regardless of your perceptions*. If the activity is targeted for instruction, you will analyze the student's level of performance later. Note relevant information about the student's performance (as perceived by the parents) in the respective column on the worksheet.

Parents' Preferences. The parents' or care providers' ranking of each activity (or perhaps of specific skills that constitute the activity) becomes the key to targeting critical activities or skills later. Note the care providers' ranking by placing an "H" (high preference for instruction), "M" (middle preference for instruction), or an "L" (low preference for instruction) in the column labeled "PREF., H, M, L."

Additionally, Worksheets 3 & 4 have a column labelled "Comments." This column provides you with space to note comments made either by the parents or care providers, or by you in relation to something that was said. To help you remember who said what, put all parental comments in quotation marks.

Suggestions for Obtaining the Information Requested for the Weekday Schedule. As you gain experience in conducting Parents' Interviews, you will undoubtedly develop your style of gathering and recording information. The following suggestions, therefore, are provided to assist you in your efforts:

SUGGESTIONS FOR INTERVIEWING

1. **Begin with the activity of "getting up" and a description of the student's performance in the activity.** You may start this part of the interview by saying, for example, "Tell me about how Philip gets up." Record "getting up" in the Activity column. As the care providers describe how the student gets up, make notes of what is being said in the Description of Performance column. If the parents are not providing enough information, ask leading questions, such as, "Do you have to wake him up or does he get up on his own?"

2. **Determine the approximate time, the environment and the subenvironment of the activity.** In many cases, the care provider will report this information as they describe the student's present performance level. If such information is not forthcoming, ask for it with a direct question (for example, "What time does Philip usually get up on school day mornings?").

3. **Determine if the activity, materials, and environments are chronological age-appropriate.** At this point, if it is obvious that the activity, the materials or the environment(s) are not chronological age-appropriate, you must decide if it is the proper time to discuss alternatives with care providers. This decision should be based on: your previous interactions with the specific parents or care providers; their willingness to accept alternatives (for example, "I know Philip is too old to sleep in my room, but he's afraid to sleep alone"); and your level of comfort in providing alternatives at this time. Always be considerate when providing alternatives and always attempt to understand why the care providers are allowing the student to engage in the particular activity. Never belittle the parents for allowing or even encouraging the student to engage in the particular activity. Only through understanding and empathizing will you be able to assist the care providers in determining chronological age-appropriate activities, materials and environments.

4. **Determine the parents' or care providers' preference for instruction of the particular activity.** This information becomes important in determining critical activities and skills which later may be targeted for instruction. Ask the care providers if the activity is a high, middle or low preference for instruction. For example, you may

say, "You've just described how Philip eats. Would you rank "eating" as a high, middle or low preference for something we could work on at school?"

5. **Determine the next activity in the student's typical weekday schedule.** Once you have gathered all the information regarding the activity of "getting up," ask what usually happens immediately after. For example, you may ask, "After Philip gets up, what does he usually do next?" Record the activity in the Activity column and obtain the other information in the same pattern as previously described: Description of the Student's Performance, Approximate Time, Environment, Subenvironment, Chronological Age Appropriateness, and Care Providers' Instructional Preference. Follow the same pattern for all activities that occur prior to school and after school.

When you ask parents to describe the student's performance in the activity, they may indicate that the student performs the activity independently, but, by asking further questions, you may learn that a certain type and level of assistance is provided to the student. For example, assume that the activity is "dressing" and you have asked the parents to tell you how Philip dresses. The parents may say, "Oh, there's no problem in the way he dresses. He does okay." To probe further, ask questions like, "When Philip puts his pants on, do you assist him in any way?" The parents may then indicate that they have to put his pants on, and that he pulls them up from the knees once they are on. You may ask about separate skills for a complete picture of the student's present skill level in the activity.

When you ask leading questions, remember that the care providers are not intentionally withholding information or trying to deceive you. The parents may be so used to helping out that they don't think about it. After they have described a couple of activities with the help of your questioning, they are likely to detail the assistance they provide the student without prompting. This part of the interview may then become a valuable learning experience for the care providers. Your job is to obtain the type of information that you need to develop relevant instructional programs for the student and to support the parents in their demanding and changing role.

Additional Weekday Activities

The purpose of Worksheet 5 is to obtain information on activities that occur in a typical week but that do not occur daily. Examples include shopping for groceries twice a week, washing clothes at the laundromat once a week, eating in a restaurant on Friday nights, and visiting friends about once a week. Such activities may, in fact, be extremely important to the family for a variety of reasons. For example, even though a family may eat out only once a week, all family members enjoy the activity. At the present time, however, much of that enjoyment may be diminished by the student's present skill level and inappropriate behaviors. Since eating out is important to the family, the care provider may rank this activity as a high preference for instruction. Figure 3.5 provides a completed example of an Additional Weekday Schedule (Worksheet 5) for Philip.

Complete Worksheet 5 in the same manner as the typical weekday schedule (Worksheets 3 & 4). You may choose to add the word "Day" to the Approximate Time column. Record only those activities that occur in a typical week but not on a daily basis.

If the parents say that the student does not have any additional activities, ask them what they engage in during a typical week, and what would have to happen to allow the student to participate with them. If they say they don't engage in additional activities, you may want to ask them if they would like to, and if so, what the activities would be. The parents may indicate that they would like to have an evening out alone, but do not have anyone to care for the student. At this point, you may want to make notes about assisting the care providers in locating a sitter. Note the "desired activities" on Worksheet 5 and in the Comments column make a note to consider this information under Future Activities (see Figure 3.8) for the student.

Weekend Activities

The purpose of Worksheet 6 is to gather information on activities that occur regularly during a typical weekend. Again, such activities may be extremely important to the family. Although such activities occur infrequently, the parents may rank them high in their preferences for instruction. The purpose of Worksheet 6 is not to determine the typical weekend schedule, but to gather information regarding activities that occur consistently within a typical weekend. A completed example of Worksheet 6 (Weekend Activities) is presented in Figure 3.6.

Complete Worksheet 6 in the same manner as previous worksheets. Again, if the parents tell you that the student does not engage in any activities, ask about the activities of other family members and what would be necessary to allow the student to join in these activities; ask as well what the family would like to do and what skills the students would need to allow this to happen.

Behavioral and Basic Skills Information

The purpose of Worksheets 7-9 is to answer a standard series of questions about the student's general behaviors. Specifically, the questions relate to:

1. Student's appropriate and inappropriate behaviors.
2. Consequences of the behaviors.
3. Activities the student enjoys or does not enjoy.
4. Foods liked or disliked.
5. Student's present skill level in basic skills areas like communication (expressive and receptive), motor, cognitive, social, and activity performance.
6. Natural environments in which the student presently participates.
7. Medical considerations for the student, if applicable.
8. Student's level of interaction with siblings, if applicable.

A completed example of the Behavioral and Basic Skills Information Worksheet is presented in Figure 3.7.

If you feel that a question does not apply to a student, don't ask it. Prior to the interview, generate questions that *are* appropriate for the particular student and record the questions and the parents' responses under the appropriate item on the worksheet. The importance of this part of the interview is to find out the parents' perceptions of the student's present skill level in behaviors that are not specific to an activity or an environment, but that may impact the student's performance across a number of activities and environments. Do not assume that you know this information because you know the student's behaviors at school. Like the rest of us, students exhibit different behaviors in different environments.

Parent/Guardian Preference—Future Activities and Environments

Whereas the interview with the parents up to this point has dealt mainly with the student's present environments, this next part deals with activities and environments in the future. Future activities are those that the parents (and the student, if appropriate) would like to see the student engage in during the next three years. (The three-year projection is arbitrary, but it allows parents and educational personnel to make relevant and realistic decisions about the future.) Future activities are identified in domestic, recreational/leisure, general community and vocational environments. Figure 3.8 provides a completed example of Parent/Guardian Preference—Future Activities and Environments (Worksheet 10).

During this part of the interview, ask the parents to generate as many future activities and environments as they can in each curricular area. To support the desires expressed and decisions made by the care providers, you will need to be creative in your vision of the chronological age-appropriate activities and subsequent natural environments open to the student, you will need to draw on all the information available to you. Use the information gathered from the Student's Immediate Neighborhood Inventory completed prior to the interview as well as information you have about the local community. This information can assist the parents in determining future critical activities because these resources provide information on the general community and the immediate neighborhood in which the student lives.

You may find that some parents have difficulty thinking of future critical activities. Although it is best not to provide suggestions, it may be necessary in some cases. For example, the parents may be having a difficult time thinking of future activities in relation to recreation/leisure. Drawing on the information collected in the ICSM Community Inventory (see Figure 3.3), you could mention that in the nearby park you saw children playing who were about the same age as the student (a chronological age-appropriate activity and environment). You could describe the children's activity. At this point, ask the parents if they would like to see the student play with other children and, if so, suggest that the local park is one of the places where this activity could take place. Be alert to all verbal and nonverbal responses to your suggestions. Always be supportive of the parents' decisions. (A word of caution: If you find that many parents have generated similar lists of future activities, you may be

FIGURE 3.5
WORKSHEET 5

Additional Weekday Activities

Student: Philip

List any activities that occur throughout the week (M - F), but NOT ON A DAILY BASIS.

Envir.	Sub-Envir.	Activity	Approx. Time	C. A. App.	Description of Student's Performance in Activity	Pref. H,M,L	Comments
Community	grocery store	shopping with grandmother	one or two times a week	Y	He likes to grab at things, but he likes to go.	M	
Community	neighbor's house	visiting	once a week or so	Y	Visits lady next door (no children).	L	Neighbor helps get wheelchair up stairs in front of house.
Community	park	walking	once a week or so	Y	Grandmother pushes Philip to local park. They walk or they sit while she knits / reads	H	Play equipment and neighborhood children at park. Grandmother thinks "fresh air" is good for him.
Community	the office	appointment	month	Y		L	Likes dr. - gets a sucker.

FIGURE 3.6
WORKSHEET 6

Weekend Activities

Student: Philip

List any activities that occur regularly.

Envir.	Sub-Envir.	Activity	Approx. Time	C. A. App.	Description of Student's Performance in Activity	Pref. H,M,L	Comments
Local laundromat	washing area waiting area	watches	Saturday morning	Y	- Philip enjoys going to laundromat - Likes to watch, sometimes attempts to throw clothes into washer. - Needs something to do while waiting - Likes to have a coke.	M	No problem - puts clothes in basket on Philip's tray & walks to & from home
Church	Sunday nursery school	plays	9:00 - 10:00	N!	Plays with toys.	L	Grandmother thinks it's OK he's in the nursery. She considers it babysitting while she goes to church & is "glad they take him"!

FIGURE 3.7
WORKSHEET 7

Behavioral and Basic Skills Information

Student: Philip

What Activities does Philip (student name) like to do? Does not enjoy doing? How does he/she let you know?

Likes: busybox, taking walks to park, listening to music & TV videos } smiles, giggles

Doesn't like: being in room alone, sitting in chair a long time. } yells, bangs head

What foods does Philip (student name) enjoy eating? Does not enjoy? How does he/she let you know?

Likes: anything as long as it's mashed up, ice cream & pudding } eats, smiles

Doesn't like: grapefruit juice } spits out

What types of interaction does Philip (student name) enjoy? Does not enjoy? How does he/she let you know?

Likes: to be talked to, to be included when visitors come } smiles, coos

FIGURE 3.7 continued
WORKSHEET 8

Behavioral and Basic Skills Information (cont'd)

Describe how Philip (student name) behaves in each of the following areas (only if appropriate for particular students):

Eating: regular food, mashed up, put through strainer; uses regular spoon & plate; grandmother assists in holding the spoon & getting to his mouth, wipes mouth

Communication (receptive): likes to be talked to, seems to "understand a lot"

Communication (expressive): tries to say: eat, bus, max, drink, tinkle, hi & bye
could augment this with a picture board

Toileting: not schedule trained – wears diaper at night

Mobility: scoots on bottom or rolls around; doesn't move his own chair, walking is high priority!

Behavior: makes loud noises all the time
hits his head against the handle of his wheelchair & cries
bangs his tray with his head

How do you handle inappropriate behaviors? "sometimes I let him do it, sometimes I give him a pillow to pound"
"tell him to stop" "bring him to sit next to me"

FIGURE 3.7 continued
WORKSHEET 9

Behavioral and Basic Skills Information (cont'd)

What things are important to you or other family members regarding Philip (student name) that we have not talked about yet?

"My sister & her family are not very comfortable around Philip. She would like him to be able to eat better & interact with her children & grandchildren so that gatherings would be more enjoyable."

Talks a little about how her daughter gave Philip up.

Do you ever go out for an evening without Philip? "No, it's too hard to find someone to take care of him."

What is your plan for Philip for the near future? "He'll stay with me — I'm healthy & fit." She has talked with her son about taking care of Philip when she's too old and "he gets too big."

Medical Considerations: seizures, petit mal

Medications used: none, but keeps record of seizures at home for Dr. — please do same at school.

When: _____

Physician: Dr. Sorrento

Allergies: _____

Other: _____

_____

providing too many suggestions. Make every effort to obtain the future activities deemed critical *by the parents*, regardless of your suggestions.)

Both you and the care providers may find it difficult to keep from discussing basic skills instead of activities (for example, you focus on communication instead of buying a snack at the local store, or on motor behaviors instead of ordering and eating a meal in a fast food restaurant). This may be especially true when generating future activities for students who exhibit very few skills at the present time. If the student presently exhibits few behaviors in communication, motor, social, cognitive or performance skills, it may be difficult to generate future domestic, recreational, general community and vocational activities. Continue to guide the parent in the direction of activities by asking such questions as, "You've stated that you'd like Robert to 'get around by himself better.' Where do you picture him and what would he be doing?"

Historically, we have thought that a student must possess a number of behaviors, especially in basic skills areas, to participate in natural environments. Such thinking keeps our students from chronological age-appropriate activities in natural environments and in the past has often led to segregation, isolation, and participation in "handicapped only" environments. Therefore, it becomes essential at this point to make sure we focus on future activities that will lead directly to participation in natural environments, regardless of the level of assistance or the type of adaptation that will be required. Behaviors in basic skills will not be ignored in the design of instructional programs. The ICSM Systematic Instructional Process will later integrate basic skills directly with critical activities.

When completing this part of the interview, you may find that some parents have an extremely difficult time thinking about the future of their child. Parents may adamantly say, "We take one day at a time. We don't think about the future." This philosophy could stem from a number of factors. In some cases, the parents may find it too painful to think about the student's future because of past disappointments and frustrations. In other cases, parents may fear the future because their lives have held so many surprises. Regardless, always respect the parents' wishes. Do not push them to make choices and decisions about the future of the student. Point out the importance of preparing the student for the future and the transitions that may be necessary to assist the student to participate in different activities and environments. Ask them to give this area some consideration at their leisure. Planning for the future may involve a learning process for the parents and their stages of transition may differ from yours.

To complete Worksheet 10 (Future Activities and Environments), start above the dotted line and list each future activity that the parents or care providers have identified. List the potential environments for each activity below the dotted line. Help the parents generate at least one activity in each of the four curricular domains. After all future activities and environments have been listed, ask the parents to indicate their preferences for instruction (high, middle, low). Determine if the activity and environments are chronological age-appropriate. Use your judgement to discuss the age appropriateness of highly preferred activities now or at a later time with the parents.

Initial Summary/Infusion of Basic Skills and Critical Activities in all Curricular Domains

The purpose of Worksheet 11 is to summarize information provided by the parents during the interview. Due to the wealth of information, the summary becomes essential: It gives parents a review of the decisions they made, and it provides a synthesis of the basic skills, activities, skills and environments they have deemed important. Additionally, you will use this summary worksheet later to prioritize critical activities and skills for instruction. Figure 3.9 shows a completed summary of the interview with Philip's parents (Worksheet 11).

To summarize the interview, review completed Worksheets 3 and 4 and list all *high-preference activities* in the appropriate curriculum domain: domestic, vocational, recreational or community. As each activity is discussed, ask the care providers if the activity is still a high preference for instruction. If it is, jointly determine the natural environments in which the activity does or will take place. Determine if the environment is a present environment (one in which the student already participates at some level) or a future environment (one in which the student does not participate on any level). Once all activities and environments have been recorded, ask the parents if there are activities which need to be deleted or added to each domain. Ask the parents to rank the top four activities in each curriculum area. If there are less than four activities recorded, have them rank-order the

FIGURE 3.8
WORKSHEET 10

Parent/Guardian Preference
Future Activities and Environments

Student: Philip Date: 2/4/89

1. List the activities that you would like your child to be doing in one, two or three years from now in each of the following areas (above dotted line). Where would these activities take place? (below dotted line). INTERVIEWER: Use your information from community inventory file and student's immediate neighborhood inventory to assist parents or care providers.

2. After completing list, have parents rank high, middle, or low preference for each activity. Circle the rating in the column next to the activity. Determine if the activity and environments are chronological age appropriate (Yes or No).

Domestic C. A. (Y) N PREF: (H) M L	Recreation/Leisure C.A. (Y) N PREF (H) M L	Community C.A. (Y) N PREF (H) M L	Vocational C.A. (Y) N PREF: (H) M L
feeding self	playing to keep himself busy ("connect four", vidio games)	going shopping - keeping hands down & quiet	stapling school newsletter
home sisters house	home, neighbor's home, sister's house school	grocery store drug/variety store	home school
C-A. (Y) N PREF: (H) M L	C.A. Y N PREF: H M L	C.A. Y N PREF: H M L	C.A. Y N PREF: H M L
assisting in dressing and undressing			
C.A. (Y) N PREF: H (M) L	C.A. Y N PREF: H M L	C.A. Y N PREF: H M L	C.A. Y N PREF: H M L
toileting schedule			

activities listed. Note their ranking by indicating a 1, 2, 3, or 4 in the appropriate column. Across the top of the chart, list the basic skills identified by the significant others and D.I.S. staff and consider what basic skills are required by each activity. Fill in the infusion matrix, indicating which basic skills are components of identified activities by placing a check in the appropriate box. There should not be a basic skill listed that is not part of at least one activity.

Future Contacts

Worksheet 12 has three purposes: a) to provide a space to record important additional comments made by the parents during the summary or closing of the interview; b) to note the name, address, and telephone number of additional significant others that you need to contact; and c) to provide a space to record the date, time, and means of communicating with the parents regarding the tentative goals and objectives for the student (Interview Follow-up). A completed example of Worksheet 12 appears in Figure 3.10.

You may wish to complete this worksheet either at the close of the interview or at a later time. If you wish to contact other significant individuals, make sure that permission has been granted by the parents.

CONDUCTING ADDITIONAL SIGNIFICANT OTHER INTERVIEWS

The purpose of Additional Significant Other Interviews is to determine what activities are deemed important for the student by those individuals who have daily contact with the student or an influence on the life of the student or family. Although these individuals may not provide direct care for the student, their interaction with the student or family influences the decisions made by the parents. Therefore, to improve the quality of life of the student—and to assist the care providers in allowing the student to participate in chronological age-appropriate activities in natural environments—it becomes essential to determine the preferences of the other significant individuals. The Additional Significant Other Interview Worksheet is designed to provide you with a means to systematically plan for the interview and to record responses during the interview. Figure 3.11 (Worksheet 13) provides an example of an Additional Significant Other Interview Worksheet completed for Philip's cousin, named John. The grandmother indicated that occasionally John visited during family holidays, and he was in town that week.

In the majority of cases, this interview will be conducted by telephone. Decide the major points that you want to make or the questions that you will ask before the interview. Note each point or question in one of the boxes under the column labeled "Questions/Points to Make." If during the interview, you make additional points or generate additional questions, record them in the column also. Record the relevant responses or comments made by the significant other during the interview in the "Response/Comments by Significant Other" column. Use the space labeled "General Comments/Further Contacts" as needed to summarize the interview or to record notes regarding future contacts with the person.

You may find that your students are like Philip—or you may not. Your students may have more skills, or they may have fewer. Regardless, the interview process is conducted in a similar fashion. The parent or significant other is asked to describe typical weekday and weekend activities for the student when not in school. A description of the student's behavior, in terms of assistance needed, social skills, and so on, is asked for.

Teachers who use the interview process find that the structure and format of the interview allow for a fluid and rapid exchange of information. Because specific information is requested, the interviewer finds it easy to keep the conversation on track and to elicit the maximum amount of pertinent information in the shortest time. Of course, if it is apparent that the parent or care giver has other needs at the time (to vent frustrations, to avoid painful topics, or to cry for help in coping), you should trust your judgement in how best to help and support that parent—instead of continuing with the interview as planned. There is a fair amount of literature on working with the parents of handicapped children. The bibliography at the end of this chapter lists many titles and should be a good place to start if you are interested in more information on this topic.

SUMMARY

Information gathered with Significant Other Interviews provides the foundation for determining what to teach a student. To help you conduct the interviews, 13 worksheets are offered: two work-

FIGURE 3.9
WORKSHEET 11

Initial Summary/Infusion of Basic Skills and Critical Activities in all Curricular Domains

Key

P — Parent
ST — Speech Therapist
OT — Occupational Therapist
PT — Physical Therapist
T — Teacher
PE — Adaptive Physical Ed Instructor
A — Additional Staff

Student: Philip

Date: 2/4/89

	High Preference Activities:	Source	Future (F) Present (P)	Rank	BASIC SKILLS: makes requests	grasping	uses toilet	maintains appro. voice level	keep hands down, quiet	complete task	ambulate w/walker
DOMESTIC	feeding self	P/OT	P	2	✓	✓					
	toileting on schedule	P/T	P	1	✓		✓				✓
	wipe face	T	F	4	✓	✓				✓	
	dress self	T	P	3		✓				✓	
REC/LEISURE	playing to keep himself busy (correct 4," video	P/T	P	1	✓	✓		✓	✓		
	rec. center games	P/PT	F	2	✓	✓	✓	✓			✓
VOCATIONAL	clean trays	P/T	F	1		✓			✓	✓	
COMMUNITY	grocery shopping		P	1	✓		✓	✓	✓		✓
	laundry / laundromat		P	2				✓	✓	✓	

FIGURE 3.10
WORKSHEET 12 (After Interview)

Future Contacts

1. Note additional important comments made by parents / care providers during summary or closing of interview.

   Said none of Philip's previous teachers have ever asked her what she would like for Philip to learn. Expressed great appreciation for our talk today.

2. Other possible SIGNIFICANT INDIVIDUALS to contact:

   Name: John R. (Sees occasionally) Relation: Cousin Permission granted: _____

   Address: _____ Telephone: _____

   _____
   City State Zip

   Name: _____ Relation: _____ Permission granted: _____

   Address: _____ Telephone: _____

   _____
   City State Zip

3. Next contact with parents / care providers regarding goals and objectives will be:

   Date: 2/14/89 By phone? X yes ____ no

   Time: _____ If no, place: _____

   Specific Notes for Next Contact: _____

FIGURE 3.11
WORKSHEET 13

Additional Significant Other Interview

Student: Philip

Use this worksheet when interviewing individuals besides parents/care providers. Make sure permission has been granted.

Significant Other: John (age 12) Relation: Cousin
name age

Questions/Points to Make	Response/Comments by Significant Other
1. What things would you like to be able to do with Philip?	Likes Philip, but "he doesn't do too much." "My friends & I go down to the Game Center, if he knew how to play the games, he could go with us."
2. What do you wish Philip could do?	Talk to me.
3. Is there anything you would like to tell me about you & Philip?	"Nope." "He's okay... kind of funny at times."
4.	
5.	
6.	
General Comments/Further Contacts:	

sheets to be completed before the interview, nine worksheets to be completed during the interview, and one for after the interview; a last worksheet is provided to aid you in interviewing additional significant others, should you determine that their cooperation will be helpful.

Each worksheet is designed for effective and efficient retrieval of information. Taken in sequence, the worksheets logically order the interview and, subsequently, let you and the parents proceed with confidence. The information obtained from the worksheets will help you create an individualized instructional program that emphasizes skills deemed important by significant individuals in the student's life (and by the student, if appropriate), and that will facilitate participation in chronological age-appropriate activities in natural environments. In short, by completing the worksheets, you will have identified the critical skills necessary for each student to more fully participate in his or her unique life.

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CHAPTER 4
TARGETING CRITICAL ACTIVITIES

By Kathleen Holowach
with Tom Neary and Gayle Patterson

CHAPTER 4
TARGETING CRITICAL ACTIVITIES

By now, you should be ready to start teaching.... right? Well, maybe not yet. Up to this point you have been gathering and developing an information base about each student. Now you must analyze that information base so you can target critical activities more effectively.

ANALYZING YOUR INFORMATION

To "target critical activities" is to choose specific activities for instruction. Given the lack of instructional time available, a few extra minutes prioritizing and selecting the most important activities for instruction can save weeks and even months of precious time teaching skills of lesser importance or usefulness.

Before targeting specific activities, make sure that you have identified an adequate number of activities, you have made use of all sources of information available to you, and you have considered each proposed activity systematically (individually and on its own merits).

Have You Identified Enough Activities?

The completed Significant Other Interview will fall into one of two categories. Most interviews will identify many high-preference activities for instruction. This is especially true for students who presently exhibit a variety of basic skills. But some interviews will identify relatively few high-preference activities. This is often the case for students who presently exhibit few basic skills.

It's often difficult to plan for a student who may have been lying in a crib all his life, and who presently has few skills in motor, communication, social, cognitive, or performance skills. It may seem unrealistic to expect him to participate in natural environments. Wouldn't it seem easier to maintain the status quo?

Be careful not to fall into the trap of thinking there are only a few skills or activities an individual can perform. There are always a variety of activities in natural environments the individual could participate in, *at least partially*. To identify such activities, we may have to view students who have profound handicaps much differently from the way we have historically. We may also have to view the student in the context of his or her family to determine what skills would help the student participate more fully in family life (and would make the care giver's role an easier one).

Have You Considered All Sources of Information?

Before you can prioritize the significant others' high-preference activities and develop a general instructional framework, you must consider many sources of information. These sources include, but are not limited to:

a. Information gathered from the Parent or Care Provider Interview (Worksheet 11).
b. Information gathered from Additional Significant Other Interviews (if applicable) (Worksheet 13).
c. Information gathered from the teacher and other educational personnel regarding the student's needs, present skill level, learning rate, and environmental demands.
d. Information gathered from the assessment of basic skills.

Have you Consulted with Appropriate Ancillary Staff?

Crucial to the targeting process is input from ancillary or support staff. The information and knowledge they can contribute regarding their area of expertise can be invaluable to you. If support staff can't be involved in the significant other interview, it is recommended that they:

a. Meet with your prior to the interview to recommend specific questions to ask during the interview; and
b. After the interview, schedule a meeting with you to review results of the interview and discuss the critical activities in relation to their discipline.

Have You Considered Each Activity Systematically?

Once the assessment information is compiled, you must determine which activities should be targeted for instruction. When there are many activities to choose from, it might seem you are making decisions arbitrarily. But if you can consider each activity systematically, you will have a much better idea of its value to the program you are creating. Answering the following questions will help you make a decision based on the student's critical needs, the needs of the student's family, and the student's learning characteristics.

Questions About Proposed Activities:

1. Is the activity a student preference?
2. Could the activity be taught using age-appropriate materials and environments?
3. Does the activity improve the care provider's life or make it easier?
4. Does the activity increase the student's independence?
5. Does the activity have a high probability of occurrence in a variety of environments?
6. Does the activity have a high probability of use in future environments?
7. Does the activity expand the number of environments in which the student participates?
8. Is it likely the skills needed for the activity will be acquired given the amount of instructional time?
9. Is it likely the student will participate in the activity if appropriate adaptations can be developed?
10. Does the activity increase the student's interaction with nonhandicapped individuals and participation in nonhandicapped environments?

In most cases, parents and teachers can generate a long list of activities for instruction. By considering the variables listed above, you can view each instructional need of the student in terms of ICSM criteria. For example, a mother may decide she wants her daughter to learn to tie her shoes, brush her teeth and clear the table. When you evaluate each activity in terms of the criteria listed, you may determine that learning to tie shoes has a very low probability of occurring because of the instructional time available and the learning characteristics of the student. Another parent may think it would be nice for his 8-year-old son to learn gardening skills—weeding, watering, raking, and so on. The family, however, lives in an urban apartment. The likelihood of using these skills in his present environment is remote. While the activity of gardening certainly meets many of the criteria for selecting an activity, it may not be an appropriate objective at this time. Rarely does the decision of which activities to teach fall on just one variable. A combination of factors must be considered before the best decision can be made.

When you have tested your information base for adequacy and have looked carefully at each proposed activity, you are ready to make good use of the information at your disposal.

TARGETING CRITICAL ACTIVITIES

There are three basic steps involved in targeting critical activities for instruction: (1) The teacher prioritizes critical activities deemed important by parents and additional significant others. (2) The teacher makes additions, if necessary, to activities and environments targeted for instruction. (3) The teacher and parents negotiate targeted activities for instruction.

Prioritize Critical Activities

In most cases, you will have many high-preference activities listed on the Significant Other Interview Summary Worksheet. It might be unrealistic to attempt teaching all of these activities, and yet you may feel uncomfortable in eliminating some of them in favor of others. To help alleviate such concerns, a worksheet has been designed to rank the activities by the benefit to student and parents.

The Prioritizing Critical Activities for Instruction Worksheet (Figure 4.1) helps you target the most appropriate of the highly ranked priorities. The worksheet consists of two parts: ten questions to ask about each high-preference activity, and a grid for recording the answer to each question. There is room to rank up to five activities in each of the four curricular domains.

Using the four top-ranked critical activities in each curriculum domain, list each activity in the appropriate space at the top of each column (make sure

FIGURE 4.1
WORKSHEET 14

Prioritizing Critical Activities for Instruction

Student: Morgan J. Date: 5/14/89

Using the four top-ranked critical activities in each curriculum domain that were deemed important by care providers, list each activity in the appropriate space below. Rate each question for each activity: 10 (High); 5 (Medium); 1 (Low). Total the ratings for each activity. Rank order activities within each curriculum domain. Higher total ratings will be ranked higher.

The Activity.....	DOMESTIC				RECREATIONAL				VOCATIONAL				COMMUNITY			
	button shirt	feed self	shampoo	make bread	video game	bowling	swim		sweeping	put together assembly			fast food	restaurant	church	
1. A student preference?	1	5	1	5	10	1	10		1	1			10	5	1	
2. Could be taught using age-appropriate materials and environments?	10	10	10	10	10	10	10		10	10			10	10	5	
3. Allows the care provider's life to be better or easier?	10	10	10	10	5	1	10		5	5			10	10	10	
4. Allows the student to become more independent?	10	10	10	10	5	5	10		10	10			10	10	5	
5. Will occur frequently in a variety of environments?	5	10	1	1	10	1	5		10	5			10	10	1	
6. Has a high probability of being used in future environments?	10	10	10	10	5	10	10		10	10			10	10	10	
7. Expands the number of environments in which the student participates?	10	10	10	10	5	10	10		10	10			10	10	10	
8. Has a high probability of being acquired given the amount of instructional time and/or with appropriate adaptations?	5	10	5	5	10	10	10		10	5			10	10	10	
9. Increases interaction with nonhandicapped individuals?	1	10	1	1	5	10	10		5	5			10	10	10	
10. Increases participation in nonhandicapped environments?	1	10	1	1	10	10	10		10	5			10	10	10	
TOTAL	63	95	59	68	75	68	85		81	66			100	95	62	
RANK	3	1	4	2	2	3	1		1	2			1	2	3	

you list a *specific* activity; for example, brushing teeth as opposed to grooming). Then record the response for each question using the following rating system: 10 for high, 5 for medium, and 1 for low. After all activities have been rated, total the ratings and place the number in the "total" space at the bottom of each column. Rank order the activities from the highest number to the lowest number (totals will range from 10 to 100) within each domain. The results will be a ranking of critical activities in each curriculum domain.

By using the criteria described for each critical activity, you can feel fairly certain that an arbitrary standard has not been applied, but rather a systematic decision making process has taken place. Besides giving you a system to prioritize critical activities for instruction, the worksheet also provides a quick reference to find why or why not an activity was targeted for instruction. By glancing at the worksheet, you should find the high and low ratings for each question and, therefore, justify the ranking and decision to others.

There should be at least two critical activities listed for each curriculum domain. If not, first review all completed worksheets from significant other interviews and determine if an activity in the particular curriculum domain was mentioned by the care providers or additional significant others. Select an activity which was stated as a "high preference" for instruction by the significant other but was not ranked as one of the top four priorities. If no such activities were mentioned, select an activity in the particular curriculum domain which was indicated as a "medium preference" for instruction. If no such activities were mentioned, then (as a last resort) the teacher should generate an activity and the natural environment(s) in which the activity is to take place within the particular curriculum domain. Every student should have at least two critical activities in each of the four curriculum domains. This should be the case regardless of the present skill level of the student.

Add to the Activities as Needed

The second step is to consider possible additions to your list of targeted critical activities. First, determine if there are other activities that would allow the student greater participation in a wide variety of least restrictive present and future environments. Second, ask yourself if the student could be more independent in present or probable future environments than stated by significant others and care providers.

For example, you may feel that a student could feed himself, but the parent has always done so in the past. You may feel another student could be competitively employed in the community within three years; however, the care providers want the individual to work in the local sheltered workshop.

Select additions based on information about the student in general, about the demands in present environments, or about probable demands in future environments.

However, you should add activities for instruction with caution; don't be persuaded by your own perceptions to ignore the concerns of the student's family. The needs of the family with a child with severe handicaps will differ from the educator's view of those needs. If you fail to recognize or respect these differences, you have done little to improve the quality of the student's and parents' lives. Listen to the parents when they share their feelings about their child's present and future needs. Attempt to support and assist the parents in meeting those needs. Your sensitivity to their concerns will be especially helpful in the last step of targeting critical activities.

Negotiate Targeted Activities with Parents

The third step in targeting activities for instruction involves teacher and parent negotiations. Make sure that you have all the information you need for the activities under consideration. For example, if a parent requests that her child play table games, find out *which* game (UNO, "concentration", or so on) Following the teacher's last communication with the care providers, a number of tentative and instructional decisions may have been made. There will probably be at least one critical activity for instruction in one or more of the curriculum domains tentatively chosen. Activities and environments that are teacher preferences (and not significant other preferences) may have been selected as well.

You should thoroughly negotiate any changes you would like to see in activities or environments with the student's parents. Otherwise, the parents may not provide opportunities for the student's par-

ticipation. The skills learned may become just another functional skill that has little or no impact on the student's life—it will become something the student does only at school, and not at home.

To assist you in recording, reviewing, communicating, and negotiating tentative critical activities and environments, a worksheet has been developed. A completed sample of this worksheet, Critical Activities and Environments Targeted for Assessment and Instruction, is shown in Figure 4.2.

To use this worksheet, list the tentatively targeted activities in each curriculum domain in Column 1, and the natural environments in which each activity will take place in Column 2. Then indicate if the activity or the environment is present (P) or future (F) in Column 3. Remember, a present activity or environment is one in which the student already participates; a future activity or environment is one in which the student does not participate at the present time. Finally, note if the activity was a significant other preference (S.O.) or a teacher preference (T) in Column 4. If the activity was a teacher preference, state the purpose and reason for the addition on the back of the worksheet. This summary of information will prove useful when you communicate and negotiate the tentative decisions with the care providers.

On the established follow-up date, call the care providers to discuss information over the telephone or to set up a meeting. At the beginning of the call or meeting, refresh the care provider's memory about the interview and the summary results, and briefly explain the process that you have undertaken since the interview.

Using the Critical Activities Worksheet, explain each activity and environment tentatively targeted in each curriculum domain. If the activity or environment was a teacher preference, explain the purpose and reason for the addition. Seek the care provider's tentative approval of all activities and environments targeted for assessment and instruction. You may ask for additional information and suggestions on tentatively targeted activities and environments, and you may ask if there are any additions or deletions the care providers would like to make at this time.

If an item must be negotiated due to a difference of opinion, be open, honest and flexible. Respect the care provider's feelings. Usually a mutually satisfying solution can be found if you focus on the issue of what will most easily facilitate the student's greater participation in critical activities in natural present and future environments. Record the care provider's recommendations and suggestions in the appropriate column after each activity and environment has been discussed.

By this point in the ICSM process, you have interviewed parents to determine their preferences for activities in need of instruction; you have assessed basic skills; and you have evaluated and prioritized specific activities and environments by teacher and parent preferences with the consideration of additional factors. Using this prioritizing system, activities selected for instruction meet rigorous criteria and are not casually or subjectively determined. Also, the student's parents become integral members of the educational team because their support is systematically elicited and fostered.

FIGURE 4.2
WORKSHEET 15

Critical Activities and Environments Targeted for Assessment and Instruction

Using information from Prioritizing Worksheet 14 and any additional teacher preference activities, list the tentative activities and environments targeted for instruction. Note if the activity or the environment is for present or future participation and if it is a Significant Other or teacher preference. If teacher preference, state the reason for the addition on the back of this worksheet. Communicate and negotiate all activities and environments with care providers and record their recommendations.

	Activity	Environment	Present (P) Future (F)	SO Pref. Teacher Pref.	Care Providers Recommendation	General Notes
DOMESTIC	buttoning/ dressing	home gym (pool area)	P	S.O.	Velcro fasteners	
	feeding self	fast food rest cafeteria; home	P	S.O.		
	making snack	home	P	S.O.	peanut butter & crackers	
REC./LEISURE	swimming	home rec. center	P	S.O.	use kick board	
	video games	arcade, store atari/home	P	S.O.		
VOCATIONAL	janitorial sweeping	school gas station	P	S.O.		
	clerical/ photocopying	Red Cross office	P	T		
COMMUNITY	ordering fast food	Jack-in-the-Box McDonalds	P	S.O.	order meal "specials" (i.e. sandwich, fries & drink)	
	walking street safely	street by home, school & work	P	T	use some sort of buddy system	

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SUMMARY

In Phase 1 of the ICSM process, parents were interviewed for their preferences for activities in need of instruction. Phase 2 helps teachers systematically prioritize activities in need of assessment and instruction through a three-step process.

Step 1: The teacher prioritizes critical activities deemed important by parents and additional significant others using ICSM criteria to evaluate each previously identified activity and environment.

Step 2: The teacher makes additions, if necessary, to activities and environments targeted for instruction by reviewing the Significant Other Interview and considering information about the student, the demands of the present environment, and the demands of probable future environments.

Step 3: Teachers and parents negotiate targeted activities for instruction by discussing their preferences and their rationale for making selections.

Through this systematic process, activities and basic skills in need of assessment and instruction are targeted. This process ensures that deciding what to teach is not an arbitrary decision, but rather the result of extensive parental input and rigorous evaluation.

The next chapter will show how to determine the student's present level of performance in the activities targeted for instruction

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CHAPTER 5

DETERMINING THE STUDENT'S PRESENT LEVEL OF PERFORMANCE

By Kathleen Holowach
with Tom Neary and Gayle Patterson

The use of simulated environments and artificial materials for instruction is based on the assumption that students...will generalize skills taught in this manner to natural environments and materiels. It is less dangerous to assume that students will have difficulty generalizing. Instructional strategies which employ natural environments and materials are, therefore, less dangerous than those which employ artificial settings.

Donnellan (1984, p. 144)

What's Wrong with This Picture?

Twelve-year old Todd was taught to look at his teacher when told, "Look at me,"; to reduce his repetitive speech by learning key phrases that went along with picture cards ("Tell me...," "the boy is running," "the cat jumps high"), and stop from waving his fingers in front of his face during "hands down" sessions with his teacher. Although Todd demonstrated mastery of these skills in the classroom, he still did not look at people who spoke to him, did not refrain from repeating adult's questions to him at home and in the community, and still waved his fingers in front of his face in the grocery store, on the school bus, on the playground and while watching T.V. or other passive activities.

CHAPTER 5
DETERMINING THE STUDENT'S PRESENT LEVEL OF PERFORMANCE

Imagine developing an elaborate plan to teach a student to collate papers at the local Red Cross, only to discover, once you brought your student into the natural environment, that you had completely misjudged how much assistance he or she needed. By evaluating a student's present performance in targeted activities, you can avoid such mistakes. You will be able to meet each student's unique instructional needs by determining ahead of time if adaptations are needed and by identifying in advance what skills the student should acquire to perform the critical activity under natural contingencies. The purpose of Phase 3 of the ICSM process is to determine the student's present level of performance in targeted critical activities. After all, the instructional program for ordering a hamburger at a fast food restaurant for a student who had no verbal communication skills would differ greatly from one for a student who did speak.

ASSESSMENT OF BASIC SKILLS

The expected outcome of a good assessment is to generate all relevant information pertaining to a student's instructional needs. In addition to gathering important parent input from the significant other interview, you should also assess the student in basic skills. Basic skills are actions or general behaviors which contribute to a larger action and which are common to a number of skills and activities both within and across a variety of environments. For example, grasping is a motoric basic skill. The action of grasping is common to many skills and activities—drinking from a cup, opening a door, pulling up pants and so on. Basic skills generally fall into five categories (See Figure 5.1)

- Motor skills—fine motor, gross motor and sensory motor skills
- Communication skills—expressive and receptive language
- Cognitive skills—academic, pre-academic and decision-making skills
- Social skills—appropriate behaviors, initiating and maintaining interactions
- Activity performance skills—the manner in which an activity is performed: quality, accuracy, rate and duration

Assessment of basic skills is important for several reasons. The student's basic skills in any given activity affect the performance of that activity and many other activities across a variety of environments. Any change in a student's basic skills (an increase or decrease in the desired behavior) changes the performance of the activity. If a student learns to complete the skill of grasping, for example, there could be corresponding change in the student's performance in washing dishes, working at the nursery and getting dressed.

Historically, students who exhibited deficits in basic skills were assessed and taught those skills in isolated blocks (motor time, speech time, mobility training time and so on.) In the ICSM, such instruction is incorporated or infused in critical activities.

When students learn basic skills in and across a variety of activities and environments, they are able to exhibit functional, integrated responses under many different conditions. For example, if expressive language is an instructional need for a student, it could be infused in several critical activities, such as ordering lunch in a fast food restaurant, checking out equipment at a recreation center and working in the local hospital. The variety of instructional experiences improves the acquisition and generalization of the language skill.

Some critics complain that when critical activities are taught in natural environments, skill deficits (lack of basic skills) are not given enough importance, therefore, students receive little or no instruction in such areas. Practitioners of the ICSM contend, however, that instruction in basic skills is in fact, better. In the ICSM, basic skills are taught in their relevant contexts. This approach often results in more practice, not less, of a particular skill. For example, instead of running through 15 rapid trials a day of "look at me," the student is taught to look at each person who speaks to him or her throughout the day (secretary, bus driver, waiter, store clerk, supervisor and so on). The student is taught the necessary basic skill (in this case, making eye contact with the person speaking to him or

FIGURE 5.1

Categories of Basic Skills

Function	Area	Example
MOTOR SKILL	FINE MOTOR	GRASPING
	GROSS MOTOR	WALKING ON FLAT AND ON UNEVEN SURACES
	SENSORY MOTOR	LOCATING AND PICKING UP AN OBJECT
COMMUNICATION SKILL	EXPRESSIVE COMMUNICATION	USING A COMMUNICATION BOOK
	RECEPTIVE COMMUNICATION	SIGNING
COGNITIVE SKILL	ACADEMIC	READING
	DECISION-MAKING	DECIDING TO UNDERTAKE AN ACTIVITY
SOCIAL SKILL	ACCEPTABLE ACTIONS	SHAKING HANDS AND SAYING "HELLO"
	ACCEPTABLE APPEARANCE	CLEANLINESS
ACTIVITY PERFORMANCE SKILLS	ACCURACY	COMPLETING AN ACTIVITY CORRECTLY
	RATE	PERFORMING AN ACTIVITY IN AN ACCEPTABLE TIME
	DURATION	STAYING ON TASK UNTIL ACTIVITY COMPLETED

her) in relevant, everyday situations—rather than in an isolated learning station in a classroom where the teacher can only hope that the skill will be generalized to other settings.

In addition, many ancillary staff are thrilled with the opportunity to instruct and evaluate their students' skills in natural environments. Speech therapists can supervise students ordering drinks at a fast food restaurant, instead of having them practice sentences with picture cards in the speech room. Physical therapists can work with teachers to provide a range of activities throughout the students' day, instead of monitoring students in 30 minutes of gross motor time three times a week. Occupational therapists can teach their students to attach labels to envelopes in a business office, instead of teaching them to pick up rings and put them on pegs in the therapy room.

Initially, it may seem that for students who presently demonstrate very few skills most of your instructional time is needed for teaching basic skills. But when instruction in basic skills occurs in the context of identified critical activities, you can retrain yourself to think not in terms of skill deficits (Steven can't roll his head, can't talk, can't voluntarily move his arms and so on) but what the remediation of these deficits (acquisition of basic skills) will mean for the student. Steven will learn to roll his head from side to side as he learns to activate a switch that turns on the radio; will communicate yes/no using an augmentive communication system; will look at whomever is speaking to him; will make it easier to feed and bathe him and so on. Moreover, Steven will not be taught "moving head from side to side" before he can learn turning on the switch, looking at the speaker and so on, but rather within the context of these identified needs. Thus, basic skills are not neglected in the ICSM. Rather, instruction in basic skills occur more frequently and more practically through infusion into identified critical activities for each student.

For younger students, it is appropriate to emphasize the acquisition and generalization of basic skills in relevant contexts. As the student becomes older, there should be less emphasis placed on the acquisition of basic skills and more on adaptations. If an older student has skill deficits that limit his or her participation, then we must adapt the activity or the environment to compensate. Technological advances have greatly increased the opportunities and methods by which individuals can interact with their environment. This topic is discussed further in later chapters.

ANALYZING ACTIVITIES FOR INSTRUCTION

To facilitate instruction and to determine a student's present level of performance in a particular activity, educators typically have broken the activity into components. This process is known as task analysis. Thousands of task analyses have been developed and implemented by teachers and support personnel to teach a variety of skills.

Although task analyses may vary in format and detail, the general framework of all task analysis is the same. A simple task is shown in Figure 5.2. In this example, making a cup of coffee is divided into nine steps. Each of these steps could be divided further into a number of other steps or motor movements. For example, "Put coffee in cup" could include: pick up jar, remove lid, pick up spoon, scoop out desired amount of coffee, and so on. There is no right or wrong level of specificity in writing or using task analysis.

FIGURE 5.2

TASK ANALYSIS

1. Put water in tea kettle.
2. Put tea kettle on burner.
3. Turn on stove.
4. Wait until water is hot.
5. Turn off burner.
6. Put coffee in cup.
7. Put water in cup.
8. Add cream and sugar, if desired.
9. Drink coffee

A task analysis is usually undertaken for a specific activity. Examples include:

1. Using the vending machine at school.
2. Making a cup of coffee at work.
3. Brushing teeth.
4. Putting on a T-shirt.

When we use a single task analysis to assess and teach students a particular activity, we teach the student to exhibit a chain of responses which should occur under very specific conditions. A problem with teaching mastery to a single task analysis is that if you teach a student to purchase a soft drink from the vending machine in the teacher's lounge, the student may learn to use a machine that has only one set of relevant stimulus characteristics, such as:

1. Drinks that cost 45 cents.
2. Button under desired drink.
3. Lid that lifts to remove a can.
4. Machines that dispense only cans.

It is often assumed (or hoped) when using a traditional task analysis that if we teach an activity under one set of conditions, the student will respond appropriately to *other* similar situations. For example, if we teach John to use the vending machine at school, he'll be able to use other vending machines; if we teach Sarah to order, pay, and eat at the school cafeteria, she'll be able to order, pay, and eat at a department store cafeteria; and so on. Unfortunately, given the learning characteristics of our students, we know this is not often the case.

TEACHING PARTICIPATION IN A VARIETY OF ENVIRONMENTS

How often have you heard, "I don't know why Jose doesn't remember to put on his seat belt when you drive him to work. He always does in our car;" or, "Lori makes sandwiches for lunch in our school kitchen. I don't know why she can't do it at home;" or, "JoAnne nods her head 'yes' when you ask her a question. Why won't she do that for me?" And so on. These speakers aren't playing one-up-manship; they're simply describing what commonly occurs. Many of our students have great difficulty in generalizing acquired skills to environments and situations other than the instructional setting.

The fault does not necessarily lie with how the activity was taught, task analyzed, nor with the instructional process. Rather, teaching one skill in the same setting and under the same conditions simply does not provide the student with enough information to perform or adapt the skill in a variety of situations. Literally hundreds of variations to one particular skill can exist. These variations include one or more of the following: variations of environment (Jaime can sweep the floor at the rec center properly, but not at the restaurant); variations in people (Carla will return a greeting by the teachers or school secretary, but not to any of the cafeteria workers); variations in stimuli (Frank will turn on the vacuum cleaner when told "turn on the vacuum," but not when told "it's time to vacuum" or "please vacuum the floor"); and variations in materials (James can play the cassette recorder at home where the tape is inserted horizontally, but not at his sister's house where the tape is inserted vertically). These variations may seem subtle to individuals who can acquire new skills through incidental learning, but to many of our students, it is precisely these subtleties that make the difference between success and failure in numerous situations. An activity, learned and mastered in one

setting, does not necessarily ensure mastery in other environments. This type of mastery must be systematically planned for. To maximize the usefulness of what we teach our students, we must not only teach the precise activity in the precise environment that requires it, but we must also teach variations of the activity in the variety of settings in which the activity can and will be utilized.

This means training variations of the critical activity to meet the demands of various environments and stimulus conditions. These requirements are especially important when planning instructional programs given the logistical considerations of training in the actual natural environments or all possible environments in which the critical activity may be performed.

TEACHING ALL SKILLS IN A NATURAL CONTEXT

As each student's performance of an activity varies, so does the rationale for performing the activity. While the rationale for one student may be total independence, the rationale for another, may be maximizing practice of basic skills and increasing the level of participation. Let's take Tom as an example. Tom has multiple handicaps and faces numerous challenges if he is to learn the activities identified in his parent interview. Since he will most likely always require physical assistance through out his life, you might ask yourself "How can I teach Tom to work/participate in the cafeteria?" and "What skills should I target for instruction?" By analyzing the routine of going to the cafeteria to work, we find that Tom receives valuable instruction in the numerous basic skills found in this routine. By participating in a functional activity, Tom can obtain repeated practice of basic skills while responding to a variety of natural cues.

Traditionally, students like Tom receive sensorymotor stimulation in an artificial setting using artificial cues. By assisting Tom in participating in a cafeteria job, he not only receives stimulation from a variety of natural sources, he is also provided the opportunity to use and practice basic skills (such as eye gaze, grasping of different materials and attention to a variety of people) all within one routine.

Whether our purpose is facilitating full or partial participation in activities, analyzing routines and determining present levels of performance becomes a valuable tool that allows us to examine many opportunities for instruction.

TEACHING ROUTINES

If you were to sit back and examine a typical day, you would most likely find that your daily routine is a series of activities that transition one into another. The activities we participate in do not occur as isolated events; rather each activity naturally flows one to the other with one activity acting almost as a natural cue for the next. For example, if you want to go shopping, you may first prepare for the trip by making a list, checking to see if you have enough money and getting your jacket. While shopping, you will interact with numerous people and make a variety of decisions and choices. Once you have returned home, you may put items away, reflect on the trip and take care of any closing details. In the ICSM process, the series of events that surround an activity, including the activity itself, is call a routine.

Developing instructional programs that include routines will allow us to teach students those skills necessary to transition from one activity to the next, thereby maximizing independence. Teaching routines also allows us to make the most of our instructional time. We are able to teach basic skills numerous times throughout the day in naturally occurring contexts.

DETERMINING PRESENT LEVEL OF PERFORMANCE

Up to this point in the ICSM Systematic Instructional Process, you have tentatively targeted the critical activities and determined the natural environments that critical activities will be performed in. To determine student's present level of performance in each targeted critical activity, follow these three steps:

Step 1-A	Analyze targeted critical activities in the natural environments in which they occur.
Step 1-B	Analyze routines.
Step 2	Determine environments, if necessary, in which assessment and instruction of the student may be undertaken.

Step 3 Assess the student in the natural or instructional environment to determine the student's present level of performance in the targeted critical activity.

Step 1-A: Analyzing Critical Activities in Natural Environments

To be sure you have a clear idea of exactly what is required of the student in a targeted activity before instruction takes place, each activity must be analyzed from a nonhandicapped perspective in some or all of the environments in which it will be performed. To help you select the environments in which to analyze the activities, review Worksheet 15 (Critical Activities and Environments Targeted for Assessment and Instruction) which lists each targeted activity and the natural environments in which the activity will occur. If the activity is only going to occur in one or two environments, analyze the critical activity in all the environments listed. If the activity is going to occur in more than three environments, select the two or three environments or situations which you perceive exhibit the *widest* range of conditions. For example, you may wish to select a small corner store and a large supermarket to teach grocery shopping rather than two large supermarkets (given that all three environments have been indicated by the parents). By selecting two widely different environments for instruction, a greater potential exists for generalization.

An Activity Analysis Worksheet (Figure 5.3) has been developed to assist you in identifying and recording the range of stimulus and response variations. At the top of the page, state the activity and the environments in which this activities will be taught (instructional universe).

In Column 1, list the chain of generic skills used in the activity. The generic skills describe the basic sequence of skills required for the functional outcome of the activity. Each generic skill comprises the variety of skills required across different stimulus situations. For example, the generic skills for using a vending machine might be:

1. Select coins.
2. Insert coins.
3. Activate machine.
4. Obtain items.
5. Check for change.

In Column 2, document the variations of relevant stimuli which control the skill. Here you will write what the student must see, feel, or hear to know when or how to behave. The relevant stimulus variations may have one or more dimensions. For example, the generic skill of "insert coins" when using a vending machine could have the stimulus dimensions of location of the coin slot and orientation (are the coins inserted horizontally or vertically?). If the generic skill has more than one stimulus dimension, list each dimension separately.

In Column 3, document the variations of the relevant skill (or response). Response variations refer to the different physical movements required for correct performance of a skill. For example, the different response to "activate a washing machine" include:

1. Pushing a button.
2. Pulling a dial.
3. Flipping a switch.
4. Pushing coins in slot.

In Column 4, when applicable, determine the natural criteria for the skill variations. Natural criteria may include the frequency, duration, rate, latency, or quality of a response. For example, when selecting an item from a vending machine, the natural criteria for pushing the button is one time only, and the item is retrieved within five seconds. This information is based on a nonhandicapped person's performance and may assist you when assessing and instructing the student.

In Column 5, identify exceptions or potential errors. An exception constitutes an infrequent occur-

FIGURE 5.3
WORKSHEET 16

Activity Analysis

Activity: wash clothes at laundromat

Instructional Universe: 2 near live: Wash-O-Mat, Fred's laundromat

Generic Skills	Relevant Stimulus Variations	Relevant Skill Variations	Natural Criteria	Exceptions/Potential Errors
Enter Obtain change	-correct change Bill & coin changer Attendant on duty	Insert bill into machine Hand bill to attendant	15 seconds	
Select empty top-loading machine	- Top of machine up, no clothes visible - no light indicator on	lift lid & look for clothes; repeat if contains clothes		-no empty machines, waits turns or leaves -dye only machines
Load clothes	-empty machines	Load machines by pre-sorted bundles	maximum 4 min. per machine	
Prepare Machine for Activation	-Soap; if dry detergent -presumed	Opens soap Pours into machines	without spilling on machine	wipes up spilled soap
	-Select water temperature (cold) cold wash / cold rinse	- Pushes cold button - Turns knob indicator to c.w. / c.r.		
	-Closes lid	- closes lid		
	- Insert coins			
	Location: - left top - right side of machine			
	Orientation: - vertical (coins in end) - Horizontal	drops coin in slot Pushes coin liver in		Coin liver jams; ask for assistance or remove clothes
	Cost: 60 cents (2 quarters 1 dime)			

NOTE: Adapted from *Design of high school programs for severely handicapped students* by R. Horner, J. Sprague, & B. Wilcox, 1982, Baltimore: Paul H. Brookes Publishing Co. Adapted by permission.

FIGURE 5.3
WORKSHEET 16

Activity Analysis

Activity: Wash clothes at laundromat

Instructional Universe: 2 near here: Wash-O-Mat, Fred's Laundromat

Generic Skills	Relevant Stimulus Variations	Relevant Skill Variations	Natural Criteria	Exceptions/Potential Errors
Activates Machine	Coins inserted Drops coins in slot Pushes lever	Pushes start button Pulls lever out		- other knobs on machine - machine doesn't work; ask for attendant or remove clothes
Waits until machine stops	Indicator - Red light off - No noise	Opens lid when machine has completed cycle		
Removes clothes	Basket Cart	Removes clothes into basket Locates unused cart & puts clothes in	Max 4 min per machine	

NOTE: Adapted from *Design of high school programs for severely handicapped students* by R. Horner, J. Sprague, & B. Wilcox, 1982, Baltimore: Paul H. Brookes Publishing Co. Adapted by permission.

rence of a stimulus variation; exceptions could be an "out of order" sign on a vending machine, no free tables at a fast food restaurant, or no paper towels in a restroom. Potential errors are irrelevant stimuli which may cause the student difficulty in exhibiting the appropriate skill (such as confusing the bleach and soap bottles when doing the laundry). By thinking in advance of exceptions and potential errors, you can plan strategies for your student that will enable successful completion of the activity, should the need arise.

Step 1-B: Analyzing Routines

There are numerous opportunities for learning within and around each specific critical activity targeted for instruction. Preparation for participation in the activity, transition to and from the instructional environment, occasions for social and communicative interaction during the activity and choices within the activity routine are all valid learning opportunities you'll want to take advantage of. When analyzing the critical activities detemined with families through the parent interview process, consider each activity in terms of the routine required to complete the acitivity. The size and complexity of the routine will vary depending upon the needs of the student and the demands of the activity. The analysis of a routine is a flexible process and offers you enormous potential to consider degrees of participation by students who presently exhibit few motor, communicative and cognitive skills.

In preparation for functional assessment within the ICSM, complete the first two columns in the ICSM student Assessment Worksheet (Figure 5.4).

To use this worksheet, first list the steps of the routine in Column 2. This should be done in response to the question, "What happens next?" and should include the steps listed in the activity analysis and those additional learning opportunities provided by the activity.

Next, list the natural cues, those naturally occurring stimuli which normally signal those steps, in Column 1. This is important because these natural discriminitive stimuli must come to control responding.

In the example below, when Tom sees the principal in the hallway on his way to work in the cafeteria (natural cue), he responds by looking in his direction and smiling (greet passerby). The teaching strategies we use will need to be such that Tom's attention is not drawn away from the natural cue of the principal.

In developing a routine analysis, it is important for you to run through the routine at the natural time of occurrence a few times prior to taking assessment data so that you are aware of all the opportunities the routine provides and can plan for them in the routine analysis. The size of the steps and the complexity of the routine will be determined by the needs of each student.

Step 2: Determining Environments for Assessment and Instruction

Factors for Determining Instructional Environments

There are several factors that determine whether assessment and instruction may be undertaken in the actual environments that have been analyzed. It may be possible to undertake assessment and instruction in the same environments when:

1. The stimulus situation is unique and exhibits relevant stimulus characteristics that are not found elsewhere. An example is training for a specific job at a workplace in the community.

2. The stimulus situation is near the school and frequent instructional opportunities are easy to arrange. For example, the store that the student will shop in is close enough to school so that frequent learning opportunities may be provided.

It may not be possible to undertake instruction in the same environments when:

1. The actual environments in which the student performs or will perform the activity are far from the school. For example, the targeted critical activity is playing with neighborhood children on the swing and merry-go-round at their local park, but the park is 25 miles from school.

2. The environments of a critical activity is so large that it would be impossible to provide instruction in all stimulus situations. For example, if the targeted critical activity is shopping at the local mall, it would be unrealistic to attempt to teach shopping at every store in a shopping center.

FIGURE 5.4
WORKSHEET 17

ICSM Student Assessment

Student: Tom Activity: _____ Date: _____

Natural Cues	Steps in the Routine	Ability to Initiate and Use Natural Cues	Physical Participation	Social/Communicative Participation	Ways to Increase Participation
Pictures of workers	Prep for Work				
Door	Enter cafeteria				
Workers greet	Greet workers				
trash handed to him	grasp trash				
"	repeat				
Break Time	Break				
Break over	Begin work				
trash handed to him	repeat				
"we're finished"	leave				
Passerby	greet passerby				
door of room	enter room				

Recommendations:

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Adapted from *Participation and competence: Designing instruction to increase initiation and performance* by K. Gee, 1989, Unpublished Manuscript. San Francisco State University. Adapted by permission.

Instructions for Determining Instructional Environments

If there are several instructional environments to choose from, you may find it helpful to evaluate each potential site on the range of skill and stimulus characteristics that it offers. If so, you may wish to use the Training Environment Checklist shown in Figure 5.5. In the left column, list each generic skill for the activity. Under each generic skill, indent and list its range of stimulus characteristics. In the columns along the top of the page, list the potential instructional environments, and note with "N" or "I" whether the environment listed is natural or instructional.

Check the appropriate box for each generic skill that could be performed in the environment listed. From the completed worksheet you can select the two or three instructional environments that represent the widest range of stimulus characteristics. For example, in Figure 5.5, environments 1, 2, and 3 have similar stimulus characteristics, as do environments 4 and 5. In selecting the instructional environments then, you would want to select one environment from 1, 2, or 3, and one environment from 4 or 5. The student would be instructed in two environments that represent a range of natural environments for the activity.

The criteria used for selecting among environments with similar stimulus characteristics will reflect logistical concerns. You might ask yourself which environment is easiest to get to, which is nearest another instructional environment, which provides additional targeted activities, and so on. Make your decision with the student's needs as the primary consideration, however; logistical concerns are secondary.

Step 3: Determining Student's Present Level of Performance in Targeted Critical Activities

Assessment should be a process that generates as much relevant information as possible and assists us in developing a meaningful instructional program. It is important to consider a range of factors in gaining this information. One such assessment process assists us in considering the various factors in a student's attempt to perform critical activities. The assessment worksheet provided (Figure 5.4) is an adaptation of one developed by Gee (1989) and helps us to consider various factors in a student's attempts to perform parts of the routine as well as ways to increase a student's participation.

Sometimes the inability to perform a particular routine has more to do with a lack of familiarity with the routine sequence than a deficit in student skill level. More accurate assessment information will be gathered when you allow the student to be involved in the routine a few times so that he can become familiar with the steps and so that you can begin to note consistency in performance and when attempts to initiate the steps of the routine occur.

In Column 3 of the Assessment Worksheet, note whether the student initiated the routine step in response to the natural cue (prior to any assistance or instructional cueing). For students with few skills, it is important to watch closely for indications that the student is attempting to initiate the step (look for eye movements, changes in muscle tone or attempts to orient towards the natural cue or materials used). If you suspect that the student is attempting to initiate the step but that an underlying basic motor or communicative skill deficit is preventing the performance of a step, note this in Column 3.

Next, record the student's physical participation in Column 4. Describe how the student physically performs the step. Noting incorrect responses allows you to analyze any error patterns so that you can develop instructional strategies for remediating them. When a student is not able to respond correctly, one strategy might be to use an increasing assistance approach to prompting. The student is provided

FIGURE 5.5
WORKSHEET 18

Training Environment Checklist

Student: _____

Activity: Ordering at a Restaurant

Date: 5/24/86

Environments

Circle:
N = Natuaral Environment I = Instructional Environment

Generic Skills and Range of Stimulus Characteristics	Harvey's Hamburgers (N) I	Amy's Pancakes (N) I	JR's Family Restaurant (N) I	Betty's Chicken N (I)	Susan's Smorgasboard N (I)	N/I	N/I	N/I	N/I	N/I	N/I
Enter											
push door	✓	✓									
pull door			✓	✓	✓						
Find Table (be seated)											
Counter		✓									
no hostess	✓			✓	✓						
hostess		✓	✓								
empty tables (usually)	✓			✓	✓						
No empty tables (usually must wait)		✓	✓								
Determine Food Desired											
printed menu	✓		✓								
printed menu with pictures		✓									
menu "board" above counter				✓	✓						
Order Food											
waiter/waitress asks for order	✓	✓	✓								
Walk to counter when ready				✓	✓						
Counter person asks for order				✓							
Customer initiates order					✓						

with minimal assistance, increasing until he is able to perform the step. The involvement of your physical or occupational therapist would be helpful in examining the basis for incorrect or no response. Note the type and degree of assistance required for each step in column 4 and note any recommendations for teaching strategies.

In column 5, record the opportunities for social and communicative participation that exist with this activity and how the student participated socially and communicatively during the assessment. For each step, consider *natural* ways for social interaction to occur. The speech and language therapist could be helpful in assessing the communicative competency of the student in a particular situation and in identifying ways to participate and adaptions that would facilitate interaction.

Finally, it is important to consider how the student's current competency and participation in the routine can be increased. In some cases, the performance of one or two basic skills is the only way a student can participate in an age-appropriate activity. In column 6, note how the student's participation can be increased. Note any additional recommendations you have at the bottom of the worksheet. At this time, all members of the transdisciplinary team should examine the student's performance in the natural environment and discuss possibilities for increased participation with proposals and ideas for teaching the necessary skills required in each routine.

Figures 5.6 and 5.7 represent sample ICSM Assessment worksheets for two students. Jenny and Tom are students with very different needs and abilities. After reviewing Jenny's assessment it becomes clear that she could become independent quite quickly at banking. She demonstrates many skills and needs further instruction only in filling out a deposit slip. It would be appropriate to task analyze filling out a deposit slip and teaching this procedure when she returns to the classroom.

Tom, on the other hand, requires full physical assistance throughout the activity of working in the cafeteria. Goals and instructional objectives focus more on eye gaze and a responsive smile to his photos than to the specific task at hand. Column 6 on Tom's Assessment Worksheet indicates that the teacher should combine a physical with a verbal prompt when directing Tom to complete a step. In this instance, the basic skill of range of motion gets repeated practice while working at the cafeteria.

SUMMARY

Phase 3 of the ICSM process consists of three steps to determine the student's present level of performance in targeted critical activities: 1) analyzing targeted critical activities in the natural environments in which they occur; 2) determining instructional environments, if necessary, in which assessment and instruction of the student may take place; and 3) assessing the student in natural and instructional environments to determine the student's present level of performance in the targeted activity. In addition, the student's performance of basic skills is infused with the evaluation of critical activities.

Generalization (the ability to perform a skill learned in one setting under similar, but not identical, conditions) is frequently difficult for handicapped learners. Educators must plan for generalization systematically, or else risk wasting instructional time and energy on skills that are only serviceable in specific situations. To facilitate generalization, teachers must determine the range of relevant stimulus characteristics for critical activities, determine the range of relevant critical skill variations for each activity, determine the instructional environments that possess a range of relevant stimuli and response variations for skills to generalize to environments other that those used for training, and then train for generalization in an effective and efficient manner.

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FIGURE 5.6

ICSM Student Assessment

Student: Jenny Activity: Banking Date: 12/14/88

Natural Cues	Steps in the Routine	Ability to Initiate and Use Natural Cues	Physical Participation	Social/Communicative Participation	Ways to Increase Participation
1. Conclusion of previous activity	Check daytimer	No verbal reminder	Got daytimer		Try indirect verbal
2. Daytimer says "Banking"	Get purse & bankbook	Indep.			
3. Teacher directed	Practice filling out deposit slip	Verbal directions	Completed slip w/verbal assist.	Looked at teacher for help	T.A. Teach one step at a time
4. Teacher directed	Leave for bank	Indep.	Got purse - put deposit slip away	Said "okay"	Wait for her to decide to leave
5. Arrived at bank	Enter bank	Indep.	Entered	Looked around for table/counter	
6. Counter with deposit slips	Got deposit slip	Indep.	Got deposit slip	Said "Help"	T.A. practice prior to banking, step 3 ↓
7. Deposit slips	Fill out deposit slips	Verbal assistance	Completed w/verbal		
8. Line	Wait in line	Indep.	Moved up in line	Kept looking for open teller	
9. Open teller	Approach teller	Indep.	Approached teller	Said "Hello"	
10. Teller greets	state transaction	Verbal assistance	Gave money & deposit slip	Looked confused NONE	Teach verbal response
11. Teller asks "what type of change?"	state type of change desired	Verbal assistance			T.A. (see step 3 above)
12. "Thank you"	Leave / Exit	Indep.	Left	Said "Bye"	
13. Teacher directed	Debrief activity	Verbal assistance	Put name on slip Need help to complete		
14.	Repeat Step 3 in classroom				
15					
16.					
17.					

Recommendations: Jenny is very adept socially & is aware when she doesn't know or needs help. My recommendation would be to task analyze filling out a deposit slip & expect independence on each step of the deposit slip instead of trying to teach the entire slip one at a time.

She also needs to become dependent on her daytimer to direct her from activity to activity.

Adapted from *Designing instruction to increase initiation and performance* by K. Gee, 1989. Unpublished Manuscript. San Francisco State University. Adapted by permission.

FIGURE 5.7

ICSM Student Assessment

Student: Jon Activity: Cafeteria Work Date: 12/14/89

Natural Cues	Steps in the Routine	Ability to Initiate and Use Natural Cues	Physical Participation	Social/Communicative Participation	Ways to Increase Participation
1. Photos of Cafeteria workers	Prep for work	smiled	Gazed at photos	smiled at one photo	(1) Repeat list before entering Cafeteria and at conclusion of job
2. door	Enter cafeteria	N.A	N.A		
3. Workers greet	Greet workers	smiled & eye contact w/ worker who touched him		smiled	(2) Have all workers touch him prior to greeting. Loosen his hand straps
4. Wheel chair next to trash can and loosen hand straps	get ready to begin work and begin range of motion	No response			
5.		No response	None	None	(3) Say his name, tell him what you're going to do.
6. Range arm "Can you loose?"	Range of motion	Relaxed arm slightly	Slightly relaxed arm after several tries	Looked down	(4) Limit delay
7. Flex hand "Loosen your hand"	Loosen hand	Relaxed hand slightly	Relaxed hand after several tries	Looked down	(5) Wait for a response Limit delay.
8. Paper/trash handed to him	Grasp trash	None	Required verbal & full physical	Looked away when verbal given	(6) Continue verbal & physical
9. "	" "	"	Slight relaxation	Looked down when concentrating	"
10. Teacher leaves	Break in routine	None		Looked away or up	(7) Touch him tell him this a break
11. Teacher returns	Begin work	None	No response	No response	(8) Touch him tell him you're back
12. Repeat Step 7					
13. "We're finished"	End of work	None	None	None	(9) Showing photo to indicate good-bye to workers
14. pushed to door	Leave	None	None	None	
15 Greet principal or passing	Greet passing	None	None	startled	(10) Include principal photo
16. Enter room	Enter	NA	None	None	
17. Photos of workers	debrief	smiled at certain photo	gazed at photos	smiled at same photo as Step 1	

Recommendations:

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CHAPTER 6

DEVELOPING ADAPTATIONS FOR PARTICIPATION IN CRITICAL ACTIVITIES

Practical Uses of Computer Technology in Communication—*Almost every human sensory facility used for communication can be augmented by computer technology. Because many who are severely handicapped have some type of sensory impairment, computer technology is important in providing access to the world of nonhandicapped individuals. Considerable progress has been made in using technology to enhance visual, auditory, and tactile input and output.*

Hofmeister and Friedman, (1986, p. 357)

CHAPTER 6
DEVELOPING ADAPTATIONS FOR PARTICIPATION IN CRITICAL ACTIVITIES

ADAPTATIONS AND STUDENTS

Karla lacked the dexterity to turn on her radio, television or cassette player. She also lacked the communication skills necessary to request someone to turn these items on for her. Although she liked to listen to music and watch television, she was dependent on others to perceive her desire to have some music or the television on. With the development of a fairly simple switching device placed on the side of the head to activate any one of a number of electronic devices throughout her home, Karla could now turn on her radio and television, lights, fan, and use an electronic communications system that allowed her to initiate requests and respond to another's questions. Karla quickly gained access to activities that had been previously denied her. She did not have to spend the countless hours of frustration in attempting to improve her fine motor movements before she could engage in some of her favorite leisure activities.

Historically, it was believed that if students didn't have the critical skills needed for an activity, they had to be taught the skills before participation was allowed. This belief severely limited the quantity and quality of the student's experiences. However, in recent years, educators and others are realizing that adaptations can allow students to participate more fully in life. The purpose of Phase 4 in the ICSM process is to develop, implement and evaluate adaptations for participation in critical activities.

The ICSM supports the notion that we shouldn't limit our students' participation in a natural environment because they are unable to perform some or all of the necessary skills to complete an activity. Rather, adaptations should be devised to allow fuller participation. Adaptations become even more critical as a student gets older and still does not exhibit behaviors in basic skill areas.

What is an adaptation? It is any alternative strategy, material or device that allows an individual to participate more fully in activities in natural environments. Adaptations can be designed to compensate for a student's deficits in basic skills. Adaptations can also be developed as alternatives to the way students currently perform an activity or a skill that is unique to individuals with severe handicaps.

Activity Adaptations

Activity adaptations allow the student to perform an activity or a series of activities in a specified environment through the use of alternative materials and strategies. Activity adaptations may include:

Changing the Physical Environment. For example: wheelchair ramps; lowering tables, counters, sinks, and so on, to accommodate individuals in wheelchairs; handrails along hallways and bathrooms; or removing or widening doors for wheelchair accessibility.

Changing the Rules. For example: making the bases on a baseball diamond closer together; removing the time limits on a game; or using a spinner instead of dice for a board game.

Changing the Order of a Series of Activities or Changing the Way the Activity is Conventionally Performed. For example: only cooking meals that can be made in a microwave oven; deciding what to eat before going to a restaurant; or feeding an individual before going to a restaurant for a drink while other family members eat.

Although activity adaptations allow the individual greater participation in a specific environment, they are restrictive, however, in two ways; they may impact others (as in changing the rules of games) and they do not necessarily generalize to a wide variety of activities or environments. Changing the physical environment limits a person's participation to altered environments only. Changing the rules applies only to participation when the specific game or sport is being played. Changing an activity's sequence or conventional mode of performance improves participation in only that activity. None of these adaptations assists the individual in any environments other than those specifically targeted.

Skill Adaptations

Skill adaptations are those alternative materials and strategies which allow a student to perform the required skills of a specific activity or a variety of activities. Examples include providing a "size jig" to help a student sort different size bolts; having one person perform only certain parts of an activity while others perform other parts (Kim sorts the laundry and Robin washes it); providing assistance to an individual while eating; or providing picture or symbol sequences to let workers know when to take a break.

To determine skill adaptations, a review of the individual's Activity Analysis is especially helpful. Skill adaptations must be developed for students who experience (or may experience) difficulty due either to the demands of the range of stimulus characteristics (such as six different laundry supplies to choose from) or to the response variations (such as inserting the appropriate coins in a vending machine).

Adapting Stimulus and Response Demands

Stimulus demands are natural stimulus characteristics that elicit a response. If they are too vague, too general, or too difficult to understand, students will need the stimulus demands amended. Response demands are the response variations that are required to perform an activity. If the response demands are too complex or too difficult to perform, the response mode must be altered, while still preserving the outcome of the activity. Stimulus and response demands may be adapted in several ways.

Adopt or Adapt material: If the stimulus includes materials, alter the materials normally used, if possible, or provide additional information to the materials to help the individual perform the skill. Examples include a special handle or spoon, a foot control to operate an electric blender (easier to use than the regular on/off switch), a dot inside one shoe to distinguish left from right and premeasured shampoo.

If the response requires the use of materials, either alter the material normally used or develop other materials that allow the individual to perform the difficult skill. Examples include velcro fasteners instead of snaps on pants, a mug for drinking instead of a glass, a sponge mitt for wiping tables instead of a dishcloth, soft spong darts instead of regular darts and an electrical screwdriver instead of a manual screwdriver.

Add information to the stimulus: Add information to the natural stimulus if the student can't tell which stimuli is relevant. For example, you could add a size jig to help sort various sizes of nuts and bolts; you could provide a picture book of actual food product labels for a shopping list or you could provide a drawing of a clock with the time indicated for "break" and "lunch."

Alter skill (response) demands: Alter the skill demands if a student has difficulty with one or more skills (responses). Examples include using a communication book to order food in a restaurant, having a co-worker help lift equipment, buying items with cost-plus-one-dollar strategy, using a pocket calculator to keep score of a game and asking the counter person at a fast food restaurant to carry the tray to the table.

Such alternatives are skill adaptations. Although they occur in a specific context, they are usually less restrictive than activity adaptations because the impact on others and the environment is not as great. Skill adaptations generalize to many activities. For example, money handling and communication strategies may be used in a variety of contexts.

CRITERIA CHECKLIST FOR THE SELECTION OF ADAPTATIONS*

To decide the appropriateness of any adaptation, you should ask the following questions.

- Does the adaptation allow the student to participate in the critical activity easily and effortlessly?
- Does the adaptation use the student's current strengths in basic skill areas and compensate for those areas in which few behaviors are exhibited?
- Does the adaptation allow the individual to be as independent as possible while performing the activity? (An adaptation that requires the assistance of others is more restrictive than an adaptation that does not. Always select the least restrictive adaptation.)
- Is the adaptation acceptable to and supported by significant others? (With the vocational area perhaps being the exception, most adaptations will have to be supported and implemented by parents and additional significant others-hence the importance of negotiations with significant others.)
- Is the adaptation easier to use than normal methods? (If the adaptation requires equal or more effort than the activity or skill, then the selection of the adaptation should not be undertaken.)
- Is the adaptation as inconspicuous as possible? (Keep in mind how others perceive the student using the adaptation. The adaptation should allow individuals to retain their dignity and integrity.)
- Is the adaptation applicable in a number of activities? (Priority should always be given to those adaptations that facilitate participation in a variety of contexts.)
- Is the adaptation easily maintained? (If the adaptation requires a high level of maintenance it's likely the adaptation will not be maintained. Select an adaptation with realistic maintenance demands on educators and significant others.)
- Is the cost for the development and maintenance of the adaptation reasonable given the expected benefits? If it is reasonable, who will pay the cost? (Negotiate the responsibility for the initial cost and maintenance of the adaptation with school personnel, significant others, employers, and others if needed. Don't forget that many adaptations result in cost savings to all or some of the parties.)

WHEN TO DEVELOP, IMPLEMENT AND EVALUATE ADAPTATION

The selection and development of an adaptation may be undertaken at different times during the ICSM process:

1. **Prior** to the determination of the student's present skill level in a targeted critical activity. If you know ahead of time that a student may have difficulty participating in an activity because of a skill deficit (for example, communication), then an adaptation may be developed before assessment actually takes place.
2. **During** the determination of the student's present level of performance in a targeted activity. If you realize while you are assessing a student than an adaptation would improve participation in the activity, then, when possible, you may develop an adaptation during the assessment program.
3. **After** assessment of the student's skill level in the targeted critical activity. Once a student is assessed, you may realize that an adaptation will have to be developed to assist the student to participate more fully in the activity. In this case, the adaptation may be developed after assessment of the student's skill level, but before implementing the instructional program.
4. **During** the implementation of the instructional programming designed to teach the critical skills of a targeted activity. Often after an instructional program has been designed and is being implemented, it becomes apparent that an adaptation is necessary for the student to successfully complete the task. In this case, the adaptation may be developed during implementation of the instructional program.

Whether to develop an adaptation or to teach the specific skill(s) depends mainly on the chronological age of the student. The younger the student, the more emphasis on instruction in basic skills and less on

*NOTE: The information in this section is adapted from J. McDonnell, B. Wilcox, J. Eberhard, C. Knobbe, R. Shelton, & M. Verdi, *A Catalog of Alternative Performance Systems for High School Students with Severe Handicaps* (Eugene, Oregon: Center on Human Development, University of Oregon, 1983). Adapted by permission.

adaptations. For older students, there should be less emphasis on basic skills and major emphasis on adaptations to facilitate participation in critical activities in natural environments.

DEVELOPING ADAPTATIONS FOR PARTICIPATION IN CRITICAL ACTIVITIES

The following is a summary of instructions for completing Phase 4 of the ICSM Systematic Process.

First, study the completed Activity Analysis and Routine Assessments (from Phase 3). Look for significant discrepancies between the demands (stimulus and response) of the activity and the student's present behaviors in basic skill areas.

(There are exceptions, of course, to this sequence. For some older students, you may want to design an adaptation to compensate for basic skills without attempting an Activity Analysis. For example, assume you have an 18-year-old student with no verbal communication ability. It is hardly necessary to determine the student's performance in the critical activity of ordering lunch at a fast food restaurant. In such a case, adaptations can be found to compensate—such as a picture book that shows all the menu items—based on your immediate knowledge.)

Next, if you determine a discrepancy between the student's performance and the activity demands, ask the following question: Would an adaptation of the activity or skill allow fuller participation? For ideas, re-examine the Activity Analysis. Then brainstorm with co-workers and significant others to discover alternative ways to perform the activity or skill. Your goal at this point is to generate a list of possibilities. Adaptations include, but are not limited to:

1. Activity Adaptations
   a. Changing the physical environment.
   b. Changing the rules.
   c. Changing the order of a series of activities or the way the activity is performed.

2. Skill Adaptations (Stimulus and Response Demands)
   a. Adapt the materials or adopt new ones.
   b. Add information to the stimulus characteristics.
   c. Alter the skill demands.

From the list of adaptations, select the one that is most appropriate by answering the questions (selection criteria) discussed earlier in the chapter. Once an appropriate adaptation has been selected, develop or have someone develop the adaptation and use it with your student.

Finally, you can also check on the effectiveness of the adaptation by repeating your assessment of the student's performance in the targeted critical activity. (As indicated earlier, in some cases you would be assessing performance for the first time.) You should determine if the adaptation needs modification, or if additional adaptations are needed. In this follow-up, you should use the same selection criteria as before to choose, implement and evaluate modifications or additional adaptations.

Throughout, the critical question is: Does the student participate more fully in targeted activities with the adaptation than without?

TECHNOLOGICAL ADVANCES

There is really no limit to the level of sophistication of the adaptation. With today's technology, individuals who cannot talk can now press buttons so that a voice synthesizer talks for them. A myriad of communication systems exist, from simple photographs to amazingly complex symbols and grids. Likewise, physical adaptations can range from simple to complex—from a built-up handle on a spoon to a series of electronic switches that allow an individual to operate equipment with the slightest motion of the hand, head, or body. The adaptations that can be developed are limited only by the developers' imagination. And actually, many of these adaptations are simple to build and use.

Electrical Control Devices

Control devices are electrical or mechanical systems designed to control the operation of electrical (plug-in) (AC) or battery (DC) operated equipment. Control devices can be developed for any individual whose physical limitations do not allow the operation of the equipment as originally manufactured. If an individual can operate equipment through its original design, the use of a control device should be avoided.

Questions to ask yourself when deciding to use a control device are:

- Is the activity chosen critical to the individual, parents, or guardians?
- Will the control device be used by these individuals in natural environments?
- Does the use of the control device allow for fuller participation in the critical activity?

In Taresh and McIntosh, *Electrical Control Device Adaptations*, four types of control devices are described. The tilt switch is activated by a slight tilting movement of the head or hand. The switch can be attached to head or wrist bands such as tennis players wear. The pillow switch is activated by squeezing or pushing foam padding and can be as large as a lap tray or as small as a compact. The amount of pressure required to activate the switch can range from the very slight to the very firm, depending on the individual's physical characteristics. The realistic foot pedal switch is activated by pushing down on the switch and requires only gross motor ability of any body part to operate it. The power switch (on/off) is activated by pressing down on a panel to make a constant electrical contact; to deactivate, repeat the same body movement.

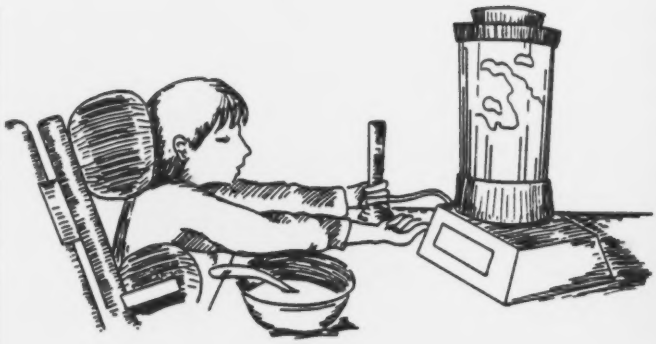
Choosing a Control Device

To determine which control device to use and how the student would activate it, gain input from parents, occupational therapists, physical therapists, and any other qualified persons. Points to consider when selecting body parts for the operation of a control device adaptation are:

1. Range of motion
2. Strength
3. Accuracy of movement
4. Control of movement

Points to consider when identifying the appropriate position for the operation of a control device adaptation are:

1. Comfort
2. Relaxation
3. Symmetrical posture
4. Active, controlled movement
5. Availability in the natural environments



Through the use of electrical control devices, individuals with extremely limited controlled movement have been taught to operate radios, televisions, blenders, electronic toys, electronic communication boards, bells which signal someone in another room to come for assistance, computers, and so on. Almost any electronically or battery controlled item can be operated by an individual with only the slightest movement, provided the correct adaptation has been developed.

SUMMARY

Adaptations are alternative strategies, materials, or devices that allow an individual to participate more fully in activities in natural environments. Adaptations can be developed to compensate for a student's deficits in basic skills or as alternative ways to perform an activity or skill which is unique to individuals with severe handicaps. Possible means of developing adaptations include, but are not limited to: 1) Activity Adaptations (changing the physical environment, changing the rules, or changing the order of a series of activities or the conventional way an activity is performed) and 2) Skill Adaptations (adopting/adapting materials, adding information to the stimulus characteristics, or altering the skill demands). As an individual's age increases, so does the need to develop adaptations for participation in critical activities in natural environments.

For students with limited physical control, electronic control devices can be developed. Control devices are electrical or mechanical devices that are designed to control the operation of electrical (AC) or battery (DC) operated equipment. Four types of control devices are the tilt switch, the pillow switch, the

realistic foot pedal switch and the power switch.

Any adaptation should be developed for one purpose: to assist students to participate more fully in critical activities in natural environments. Adaptations should not be used if the student can participate independently in the activity without the adaptation. A useful criteria checklist for selection of adaptations is provided.

In the following chapter, we see how the information gathered on the student is used to develop annual and instructional objectives.

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CHAPTER 7

DEVELOPING ANNUAL AND INSTRUCTIONAL OBJECTIVES

...we are only beginning to understand what meaningful individualization actually entails. Far more than simply coming up with a different list of objectives for each child, it involves a delicate balance between the unique needs of the individual and the common demands of the world in which that individual lives...since individualized programs must rest on careful assessments of individual talents and needs, additional attention is focused on methods for adapting evaluation procedures to better reflect the abilities of severely handicapped students.

White, (1980, p. 47)

CHAPTER 7
DEVELOPING ANNUAL AND INSTRUCTIONAL OBJECTIVES

OBJECTIVES, THE IEP AND THE ICSM

Human hopes and dreams, when stated systematically, become objectives. Until the Individualized Education Program (IEP) was begun in the mid-1970s, many parents had no set way to assess how closely their hopes meshed with the teacher's objectives—and vice versa. But in 1975, Public Law 94-142 mandated that an IEP be prepared to formalize the structure and accountability demanded by a systematic instructional process.

According to the law, each IEP must include the following components:

- Documentation of the student's current level of educational performance.
- Annual goals or the attainments expected by the end of the school year.
- Short-term objectives, stated in instructional terms, which are the intermediate steps leading to mastery of annual goals.
- Documentation of the particular special education and related services which will be provided to the child.
- An indication of the extent of time a child will participate in the general education program.
- Projected dates for initiating services and the anticipated duration of services.
- Evaluation procedures and schedules for determining mastery of short-term objectives at least on an annual basis.

Too often, teachers view the IEP as a yearly headache that creates "just more forms to fill out," instead of looking at the IEP process as an opportunity to work with the student's parents, adjunct personnel, and administrators to plan for yearly goals and short-term objectives for the student. And yet, most teachers readily see the benefits of objectives that each member of the educational team supports.

Developing, implementing, and evaluating an IEP poses no additional work if you are following the ICSM Systematic Instructional Process. The ICSM and IEP processes complement one another (Figure 7.1). The purpose of Phase 5 of the ICSM is to review all information collected during the Student and Environmental Assessment Phases and to develop an IEP which meets the unique needs of the student and allows for greater participation in chronological age-appropriate activities in least-restrictive domestic, vocational and community environments.

Traditional (Parallel) Objectives

Traditionally, instructional objectives have been written to address identified needs of the student, but they have had at best a parallel relationship to each other. In other words, the objectives have pointed in the same direction, but in an isolated fashion. These objectives are intended to move a student to a higher level of independence (or to the next developmental level), and the intent is laudable, but they fail as an integrated approach to the student's needs.

An example of an IEP with parallel objectives is shown in Figure 7.2. When parallel objectives are written, each person responsible for providing input to the student's educational program completes an assessment and develops instructional objectives in one discipline. The objectives are written to increase the student's level of independence in each area, but there is no attempt to help the student perform the various objectives in any cohesive life plan. The teacher using this format may write and teach each objective as an isolated skill, with little or no impact on the total needs of the student. The assumption when writing objectives in this fashion is that the student will be able the integrate the correct response at the correct time during numerous activities in a variety of environments. Unfortunately, this is rarely the case.

FIGURE 7.1

Relationship Betweeen ICSM and the IEP Process

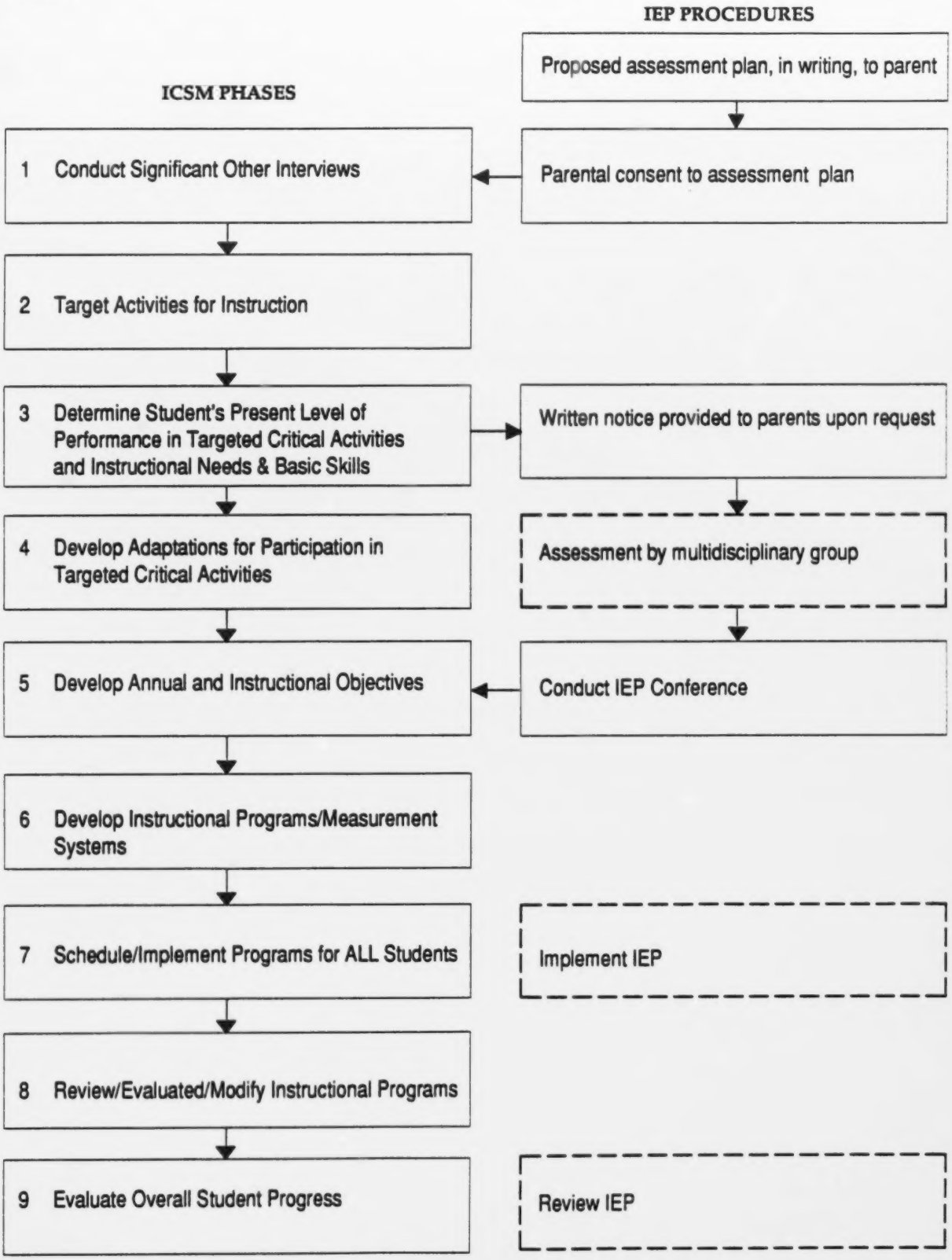
IEP PROCEDURES
Proposed assessment plan, in writing, to parent
ICSM PHASES
1 Conduct Significant Other Interviews
Parental consent to assessment plan
2 Target Activities for Instruction
3 Determine Student's Present Level of Performance in Targeted Critical Activities and Instructional Needs & Basic Skills
Written notice provided to parents upon request
4 Develop Adaptations for Participation in Targeted Critical Activities
Assessment by multidisciplinary group
5 Develop Annual and Instructional Objectives
Conduct IEP Conference
6 Develop Instructional Programs/Measurement Systems
7 Schedule/Implement Programs for ALL Students
Implement IEP
8 Review/Evaluated/Modify Instructional Programs
9 Evaluate Overall Student Progress
Review IEP

FIGURE 7.2

Parallel Objectives on an IEP

Physical Therapist:	Occupational Therapist:
1. Walk on flat and uneven surfaces. 2. Go from standing position down to floor and back up.	1. Manipulate objects. 2. Rotary chew. 3. Release cup on table without prompt.
Speech and Language Specialist:	**Teacher:**
1. Imitate gross motor movements. 2. Imitate "M," "B," and "P" sounds.	1. Dry pants entire school day. 2. Ride escalator. 3. Walk with adult while shopping without hand holding.

Infused Objectives

Educators are seeing the need to develop instructional objectives that more closely reflect current and emerging ideology. There is a need to develop instructional plans which:

- Focus on critical activities in natural environments
- Infuse instructional needs in basic skill areas (when applicable)
- Emphasize natural performance criteria
- Include appropriate adaptations for participation.

In the ICSM Systematic Instructional Process, objectives are written to elicit a functionally integrated response from the student. This is accomplished by integrating the teaching of basic skills with the teaching of critical activities. In other words, instructional objectives for critical activities are infused with the student's instructional needs in basic skills. These infused objectives focus on the acquisition and generalization of critical activities and skills in natural environments and, when appropriate, include instructional needs in basic skill areas. When the ICSM Infused Instructional Objective has been met, the student will be able to more fully participate in the critical activity in the designated natural environment(s).

Components

There are nine components to an infused objective. Each component is described below:

1. Date	Term and length of IEP.
2. Prompts/Adaptations	Conditions for participation as determined through the assessment of the student's present level of performance in relation to the Activity Analysis.
3. Critical Activity	Determined by significant others through interview and targeted instruction.
4. Natural Environments	Determined by significant others through interview: environment(s) in which activity will actually be performed (*not instructional environments*).
5. Critical Skills	Determined by significant others; present level of performance assessed in relation to Activity Analysis.
6. Natural Criteria	Determined through Activity Analysis and based upon the student's present level of performance.
7. Instructional Criteria	Subjective determination of when the student has mastered the skill components of the activity. Instructional criteria should fall somewhere within the range of 85% to 100%. Performance below 85% can not be interpreted as mastery, and does not insure adequate opportunities for success.
8. Basic Skills (when applicable)	Determined by assessment of basic skill needs and identified during Phase 3: Determining Student's Present Level of Performance.
9. Natural/Instructional Criteria per Basic Skill (when applicable)	Determined by natural criteria (rate, duration, latency, frequency or quality) and based on the student's performance in the critical activity *or* based on the subjective desires of the respective specialist.

An example of an infused objective: By June 15, 1990, given a communication book and with the assistance of one other person (for example, an older brother), Krista will eat at the Jack-in-the-Box in her home neighborhood by ordering in four seconds after request, selecting a table within 30 seconds, and eating within 25 minutes, 100% of the time for five consecutive visits. Infuse the following basic skills:

1. Social: Appropriate interaction with strangers
2. Motor: Carry objects without dropping 100% of the time

The component parts of that objective are:

Component	Example
Date	By June 15, 1989
Prompts/Adaptations	Given a communication book and with the assistance of one other person (e.g., older brother)
Activity	Krista will eat
Natural Environment(s)	At the Jack-in-the-Box in her home neighborhood
Natural Criteria	Ordering within four seconds, selecting a table within 30 seconds, eating within 25 minutes
Instructional Criteria	100% of the time for five consecutive visits
Basic Skills (when applicable)	Appropriate interaction with strangers
Natural/Instructional Criteria per Basic Skill (when applicable)	Carry objects without dropping 100% of the time

WRITING INFUSED OBJECTIVES

Infused objectives are long and may seem cumbersome at first. By writing infused objectives, however, you ensure that the instructional emphasis is on a functionally integrated response, and that the focus is on the acquisition and generalization of critical activities and skills in natural environments. By writing infused objectives, you can also infuse, when appropriate, instructional needs in basic skills. IEPs written with infused objectives leave little question in the minds of parents and professional as to exactly what instructional time will be spent on. Some more examples of infused objectives follow.

Infused Objectives

In the Recreation/Leisure Domain: By 3/90, when given a choice of puzzles, books, trucks or blocks, Michael will verbally indicate his choice and play appropriately in his home and friends' home for a 15 minute time period. Upon completion of the activity Michael will be able to put toys away on verbal cue. Infuse: Language, appropriate behavior.

By 3/90, when involved in Kindergarten group listening activities, Lindsay will sit appropriately and attend for a 15-minute time interval. Activities include: Music, stories, calendar.

In the Community Domain: By 6/90, given the assistance of another person, Terry will eat lunch at Dairy Queen within half an hour. While waiting for her food, she will sit quietly 95% of the time for five consecutive days when given a verbal reminder upon sitting down.

By 3/90, when given communication picture cards, site words and adult assistance, Michael will eat

at fast food restaurants, by ordering, paying, selecting a table and eating within a half hour time interval. Infuse: Language, toileting.

In Domestic Domain: By 3/90, when given a shirt, shorts and sock to wear, Chas will put them on at home and at the babysitters, asking for assistance if necessary (not including buttoning), four out of six days weekly. Infuse: Two word utterances and grasping.

By 6/90, given vacuum and dusting materials, Sharise will dust and vacuum family and living rooms by moving and returning appropriate furniture, throwing away trash, and leaving non-trash items independent of correction procedures for 5 consecutive trials. Infuse: Decrease Behavior: compulsive cleaning of other's possessions.

In the Vocational Domain: By 5/90, Gregg will work 5 days a week in Central College Cafeteria busing tables independently for 8 consecutive trials as measured by teacher recorded data. Infuse: Behavior—manners with strangers; Communication—returning greetings when appropriate.

By 6/90, Brandon will collate and staple presorted packets of material using sorting template and fixed-stapler materials with 98% accuracy and within a reasonable amount of time (numbers of packets vary daily) as judged by job supervisor for 5 consecutive days. Infuse: Task completion; appropriate work rate; reduction of non-work-related conversation.

DESIGNATING INDIVIDUALIZED EDUCATION PROGRAMS

Individualized education programs for students require a curriculum that is referenced to the local community, referenced to significant others, comprehensive (across curriculum domains and present and future environments), and longitudinal (looking beyond the single school year to consider the student's entire career). The ultimate concern for all instructional efforts must be the increased participation of each student in chronological age-appropriate activities in present and future least-restrictive vocational, recreational, domestic, and general community environments. You have already gone a long way toward meeting these goals. Prior to the IEP meeting, you have:

- Conducted Significant Other Interview(s)
- Communicated and negotiated with care providers the tentatively targeted critical activities and skills
- Analyzed the critical activities
- Discussed with support personnel the infusion of basic skills into critical activities
- Infused and sequenced basic skills, when applicable in the context of the critical activity
- Assessed the student's present level of performance in critical activities (and, if applicable, basic skills)
- Designated adaptations prior to and after assessment that allow the student to more fully participate in the activity.

Planning for the IEP has been an on-going process since the undertaking of the Significant Other Interview(s).

Further planning could include drafting infused objectives. To develop infused objectives with many components requires care, and you should plan on writing more than one draft. Drafting objectives does not mean that final decisions have been made. It is simply a way for you to present your information concisely at the IEP meeting, during which modifications can be made as needed. You have already had a substantial amount of communication and involvement with parents and care providers up to this point. It is unlikely that there will be any big surprises at the IEP meeting.

Prior to the IEP meeting, you can also be planning what, if any, basic skills are or are not to be infused into critical activities. Remember, most basic skills are taught in critical contexts, and not as separate skills. Occasionally, basic skills may be stated as IEP objectives, especially in the area of Cognitive basic skills (for example, reading). Caution, however, must be given to any basic skill that is not infused in a relevant critical context. As a student's age increases, the emphasis on teaching basic skills decreases. There should be less time spent on teaching basic skills to older students. Rather, the emphasis should be on developing adaptations which assist the individual in compensating for the lack of basic skills, and allows him or her to participate more fully in a variety of activities in natural present and future environments.

Remember, there should be at least two infused objectives in each of the four curriculum domains.

CONDUCTING THE IEP MEETING

By the time the IEP Meeting is held, you have had several opportunities to interact with your student's parents. With the Significant Other Interview, you have been able to develop a supportive, caring rapport with the parents. This relationship of mutual concern and trust will greatly facilitate the IEP process.

There are a variety of areas that may be appropriate to address at the IEP meeting. Remember, however, that the primary outcome of this meeting is the Individualized Education Program. Pace yourself and the discussion so that all participants feel they have had an opportunity to share their views and have their questions answered, but do not spend too much time discussing topics that might best be left to another time.

Parents, administrators, Designated Instructional Services (DIS) personnel, and the teacher will all benefit from an informative and productive IEP meeting. This can be an excellent opportunity to foster cooperative working relationships among members of the multidisciplinary team. When parents and professionals have the opportunity to see their roles as mutually supportive and integral to a common goal, the student is ultimately best served!

Among the items that you may wish to cover at the IEP meeting are: a brief introduction of all the participants and what their role, up to this point, has been; a review and brief explanation of the ICSM process undertaken up to this point; the purpose of the meeting; a brief review of the assessment information of basic skills and the significant other interview; an explanation of infused objectives which emphasize participation in a critical context; the need for specific adaptations as related to learner characteristics and activity demands; information about instructional environments and how they match the natural environments in which the student lives; and, of course, discussion of student goals and short-term objectives. At this time final refinements, if any, can be made. Your pre-planning will pay off with an efficiently run and mutually productive meeting. A relevant and practical IEP will be the outcome.

SUMMARY

The process of writing Individualized Education Programs (IEPs) allows you to make the best judgements of the unique instructional needs of each student. Traditionally, objectives have been written in a parallel fashion, where each identified need was expressed as an isolated objective, having little or no impact on the total needs of the student. The ICSM proposes infused objectives, which emphasize a functionally integrated response by the student. Infused objectives reflect current ideology, which focuses on critical activities in natural environments, infuses instructional needs in basic skills , emphasizes natural performance criteria, and includes any adaptation for participation.

In the following two chapters, we will see how the ICSM's infused objectives are incorporated into an instructional program.

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CHAPTER 8

THE INSTRUCTIONAL PROCESS: TEACHER ADDITIONS

Case Study: *Suzanne has been learning to move her wheelchair from her bedroom to the kitchen, at which time she gets a token that can be exchanged for a favorite game with her brother. Eventually, Suzanne will need to get from her bedroom to the kitchen whether or not she can later play games with her brother. The positive consequences of tokens and games will be faded (possibly earning a token every other day, then every third day, and so on; or increasing the rate of exchange where at first one token equals a game, then two tokens equal a game, then three, and so on). Through a systematic fading process, natural consequences will replace instructional consequences. Gradually, the natural consequences of self-ambition, ability to join the family, pride in accomplishments, and being in the kitchen to get a snack will replace the instructional consequences of tokens and games.*

"...behavior analyses of instructional situations have provided teachers, parents, counselors, psychologists and others, with an effective means of improving learning outcomes regardless of how seemingly different or difficult the individuals learning patterns may be."

Rusch and Mithaug, (1980, p. 3)

CHAPTER 8
THE INSTRUCTIONAL PROCESS: TEACHERS ADDITIONS

THE HOW OF TEACHING

You have determined what and where to teach, and now you face the question of how to teach. Three chapters in this manual are devoted to discussing the instructional process (Phase 6 of the ICSM). Rather than reviewing the existing literature—and there are libraries filled with books explaining and advocating various teaching methods—in this chapter we will look briefly at characteristics shared by all systematic teaching techniques, and then examine how the behavioral approach to education is applied to training situations. Chapter 9 shows the behavioral approach at work in instructional procedures. Chapter 10 covers how to develop programs and measuring systems.

But please, don't feel restricted by what follows. In setting out guidelines for sound educational practices, and in describing instructional techniques that ICSM practitioners have found effective, these three chapters are not meant to be the definitive work on the strategies of teaching. You should research the field and use those resources which will help you create your own teaching style. The ICSM provides a framework for developing a style that is both personal and procedurally sound.

SYSTEMATIC TEACHING TECHNIQUES

Despite the varieties of teaching techniques, learner traits, natural and instructional environments, and so on, all good instructional programs have certain characteristics in common. Instruction in such programs:

Occurs on a Regular and On-going Basis. Instruction on any activity identified on a student's IEP should occur on a regular and frequent basis. If not, the student's only opportunities for learning are episodic, with a diminished likelihood of skill acquisition, maintenance, and generalization.

Is Data-Based. Decisions on what and how a student is taught are made on regularly collected, empirical data on student performance. Any other interpretations of student behavior are casual, at best, and can even be detrimental to student progress. Instructional programs that occur in the community, but which are not data-based, are little more than field trips; their inclusion in a systematic instructional program is indefensible.

Is Designed to Meet the Unique Characteristics of the Learner and the Task. Learner characteristics (such as visual acuity, hearing, and social skills) and activity demands (such as language skills and motor actions) are taken into account prior to instruction. Programs set specific expectations for student behavior, teacher behavior, and environmental contingencies.

Results in Continuous Student Progress. Student's performance data are evaluated on a regular basis, and instructional programs are modified until students show satisfactory progress.

Systematically Fades Teacher Assistance. Instructional assistance (such as instructions, praise, tangible reinforcers, physical assistance, or corrections) is gradually and systematically eliminated, until the student is able to perform appropriately within the natural cues and consequences of the environment.

Results in Mastery of Skills in Natural Environments. Mastery is not determined by successful completion of tasks in instructional environments only; the student must perform the skill successfully in the environment which requires it.

Increases Rate and Fluency Once the Skill is Acquired. Once a student performs a skill correctly, additional instruction ensures that the rate and fluency of the skill approaches or is equal to the demands of the natural environment. For example, once Charles has mastered the correct sequence and standard of quality for setting the tables at the pancake house where he works, his teacher will continue instruction until his rate is equal to that of his nonhandicapped coworkers.

Occurs in Every Situation in Which Behavioral Change is Expected. Each skill is a necessary part of a whole; each time an environment demands a particular skill, systematic instruction of that skill

should occur. For example, whenever Steven makes spontaneous utterances, he should be reinforced in the same way, whether or not he is with the speech therapist during his designated "speech time."

Developing instructional programs and management systems is itself a systematic process. Objective criteria, firmly rooted in sound educational theory, form the basis for deciding what teaching techniques to use, what instructional programs to write, and when to modify instructional programs.

A BEHAVIORAL APPROACH TO EDUCATION

Behavioral research from the 1940s through the 1960s has significantly advanced the method of delivering instruction to learners with severe handicaps. This earlier research analyzed and described behavior as an interaction between environmental events and human responses. Through this close scrutiny, researchers looked at behavior as a three-part contingency called the *operant paradigm:*

Stimulus → Response → Consequence

Behaviors (responses) do not occur in isolation, but always in the context of this paradigm. There is always a stimulus or range of stimulus characteristics that cues the response, and there is always a consequence that affects the likelihood of the response occurring again. This paradigm holds true for all behaviors throughout the day.

For years, classroom teachers have successfully taught students new skills by employing the principles of this learning paradigm. Teachers have arranged antecedent events to evoke certain responses, and have delivered particular consequences to effect future occurrence of that response. Essentially, teachers have controlled the classroom environment to bring about desired responses ("Ricardo, pick up your spoon," "Good job, you're ready to eat," and so on) with little or no regard for natural stimuli and natural consequences. As a result, students have learned to pay attention to a request or comment only after we have instructed them to look at us. They have learned to dress themselves in the middle of the morning, sitting at a learning station, after we have undressed them and told them, one piece of clothing at a time, to get dressed. They have learned to ask for help only after we prompt them to do so. In short, students have learned to perform skills and participate in activities only in the presence of a teacher! This inadvertent dependency prohibits the student from maximum participation in critical activities in natural environments.

Although such controlled instruction seems artificial, it displays some important aspects of quality teaching. Teaching methods which apply the operant paradigm have consistency. This instructional method relies on neat and precise learning trials, repetitive opportunities to perform the same skill in the same way, such as asking the student to put their hands down for 15 consecutive times. In fact, the learning trials are so neat and precise that an entire teaching strategy, the Discrete Trial Format, was developed (Donnellan-Walsh, et al, 1976). The Discrete Trial Format forces the teacher to be continually aware of environmental contingencies that effect behavior. There are clear beginning and end points to each learning trial. A learning trial begins with the teacher stimulus and ends with the teacher consequence: "Tommy, look at me" (teacher stimulus); Tommy responds by looking at the teacher; "Good looking at me" (teacher consequence). The teacher plans cues and consequences prior to the learning trial and always knows what to do before and after each student response.

Unfortunately, some of that precision walks out the door when students are taught in natural environments. The teacher no longer directly controls all stimuli and consequences. But the operant paradigm is still at work; the difference is that the student can now learn to respond to natural stimulus and consequences. The learning trial can begin with a natural stimulus. When the waitress asks, "May I take your order?" the trial has started. Obviously, teachers must preplan strategies to help their students learn correct behaviors in natural settings. These strategies must include precise descriptions of how to help elicit the correct response, how to provide a consequence for correct and incorrect responses, how to fade teacher assistance, and how to ensure maintenance of the skill in all ranges of natural contingencies. Our operant paradigm now looks like this:

Natural Stimulus → Response → Natural Consequence

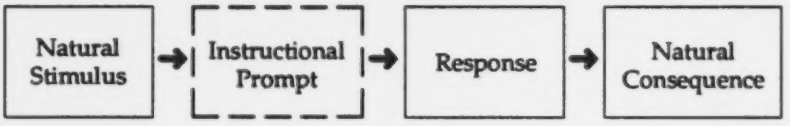
It behooves teachers to take advantage of the contingencies that are already at work in the environment.

TEACHER ADDITIONS: EXPANDING THE OPERANT PARADIGM

While it is important to be continually aware of the Natural Stimulus → Response → Natural Consequence paradigm, frequently this paradigm must be expanded to teach individuals who presently exhibit very few skills. Additional components or "teacher additions," in the form of instructional (artificial) prompts and instructional (artificial) consequences, may be necessary to provide the student with the information he or she needs to learn a skill.

Instructional Prompts

An instructional prompt is any assistance (added to or after the natural stimulus but before the response) that will bring about a correct response. If a natural stimulus does not cause the student to respond (or it causes the student to respond incorrectly) then the teacher must provide additional information or extra help.



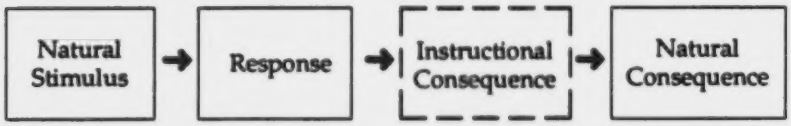
Prompts generally fall into one of six categories:

1. **Verbal Prompt:** A statement made after the natural stimulus, providing enough information to occasion the correct response. Verbal prompts can take two forms:
   a. **Direct Verbal Prompt:** A verbal direction or command that requires relatively specific action. Examples include "Open the door," "Put the money in the slot," or "Drink your milk."
   b. **Indirect Verbal Prompt:** A covert or implicit verbal statement that requires relatively specific action. For example, if a student is in a warm classroom wearing a heavy coat, the teacher might say, "Isn't it warm in here?" rather than directly telling the student to take off his or her coat.
2. **Gestural Prompt:** A physical, nonverbal motion or movement that indicates certain actions should be performed—as, for example, pointing to the open door when cold air is coming in.
3. **Physical Prompt:** A physical contact that enables the student to respond. Physical prompts range from the subtlest tap on the hand to a complete guiding of the student through the entire task. Physical prompts are generally of two kinds:
   a. **Partial Physical Prompt:** A physical contact that assists a student through part of a desired response. For example, the supervisor puts her hand lightly on David's hand and guides the time card in at the correct angle.
   b. **Full Physical Prompt:** A physical contact that guides a student through all of a desired response. For example, if the food falls off Susan's fork when she lifts it to her mouth, the teacher places his hand over hers and guides her hand from the plate to her mouth.
4. **Modeling:** A demonstration of the desired response to get the student to imitate it. For example, if David must punch a time clock on arrival at work, he watches his supervisor take her time card from the rack, punch the time clock, and return her card to the rack; then he copies her actions with his card.
5. **"Within Stimulus" Prompts:** Information within the stimulus or materials that helps elicit the correct response. Examples include a piece of tape on a measuring cup (to mark how much detergent to pour) or the printed outline of the silverware and plate on a place mat (to mark correct placement).
6. **Visual Prompt:** Visual information that elicits the correct response. One example is a picture series showing the sequence of skills of sweeping a room.

If prompts are not effective—if they do not elicit the correct response—they should be changed. How to select appropriate prompts is discussed later in this chapter. Modifying instructional strategies is covered in Chapter 12.

Instructional Consequences

An instructional consequence is any addition (administered after a student response) that will give the student feedback as to the accuracy or appropriateness of his of her response.



An instructional consequence is artificial, inasmuch as the consequence would not occur naturally outside the instructional session. Its main purpose is to affect the rate of future occurrence of the response. For example, when a student puts a requested item in the shopping cart, the teacher-delivered instructional consequence could be a smile and verbal praise for the student. When a student throws food on the table in a restaurant, the instructional consequence could be the teacher removing the plate from the student's reach. Neither of these consequences would occur outside the instructional setting.

Instructional consequences can take the form of social praise, tokens, the opportunity to perform a desired activity, food, and so on. Some consequences are intended to *increase* the likelihood of the response occurring. In those instances, they serve as *reinforcers*. Reinforcers maintain or increase the behavior they follow. Other types of consequences are intended to *decrease* the likelihood of the response recurring. Technically, these types of consequences are known as *punishers* or *negative consequences*. Punishers discourage or decrease the behavior that just preceded.

Examples of negative consequences include ignoring, indicating disapproval, removal from a favorite activity, and so on. A few words of caution are necessary here. Some punitive consequences, such as corporal punishment or harsh verbal reprimands, are neither legal nor ethical and should not be used. In fact, any negative consequence should be used only after all positive approaches have been exhausted. When you do use negative consequences, always make sure that you create frequent opportunities to teach and reinforce appropriate replacement behaviors. Inappropriate behaviors can only be truly eliminated when appropriate behaviors have taken their place.

SELECTING APPROPRIATE TEACHER ADDITIONS

The effectiveness and intrusiveness of a teacher addition depends on learner characteristics and activity demands. Applying a particular hierarchy of instructional prompts or consequences in all cases would be inefficient for both student and teacher. Potential advantages and disadvantages for each type of prompt are shown in Figure 8.1; the previous section briefly covered the relative merits of positive and negative consequences.

Selecting Instructional Prompts

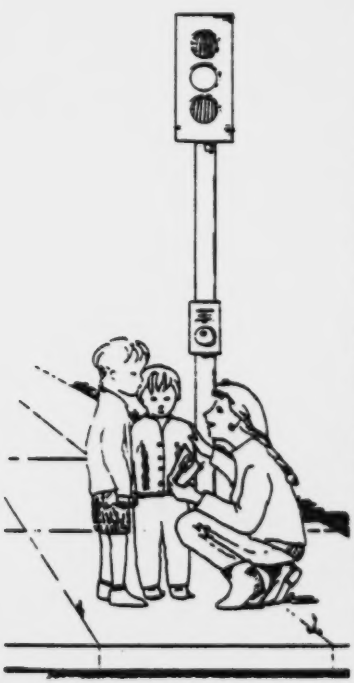
To focus on the left-hand side of the operant paradigm, physical prompts are generally considered to be the most intrusive because they require the most interaction between student and teacher. Verbal and gestural prompts are generally seen as less intrusive because 1) they do not require physical interaction between teacher and student, 2) they are readily available in the natural environment (people tend to give verbal and gestural assistance to both handicapped and nonhandicapped learners), and 3) they don't require close physical proximity. A warning is offered, however, about verbal prompts. Many students have few receptive language skills. Consequently, what we think to be verbal prompts may be only so much noise to such students. Teachers, in general, tend to be too verbal with their students. If you are uncertain whether or not to give verbal assistance, then you probably should not. It is not necessary or efficient to explain, describe, and otherwise articulate every action to your students.

But again, make sure that the prompt matches student characteristics. Some students become easily dependent on one particular type of prompt. For example, Sheila may correctly bring a spoonful of food from the plate to her mouth only when the teacher taps her on the hand to start the movement.) This type of dependency makes it extremely hard to fade the prompt and can be avoided by gradually diminishing the level of prompt while regularly allowing the student to perform the skill without prompts (or with a *substantially* diminished level of prompt).

In selecting prompts, you will want to collect information about the student's learning characteristics and the activity itself. For example, verbal prompts would not be a good choice for students with few receptive language skills; physical prompts would not be good for students that are tactilly defensive, and so on. Questions to ask include the following:

- Is the student tactilely defensive (unwilling to be touched)?
- What is his or her past success with prompts?
- What are his or her receptive language skills?
- Would verbal instructions interfere with the successful completion of the activity?
- What type of assistance is appropriate for the natural environment?
- What type of assistance would draw the least attention—and therefore be the least stigmatizing to the student?

There are times when your decision regarding which prompts to use will lie less with the student and more with the activity. For example, regardless of the student's mode of learning (through verbal cues, through modeling, and so on), if the activity you are teaching is potentially dangerous—such as crossing city streets—then the prompts you will use will, of course, be dictated by what is safest for the situation. In the case of crossing streets you would most likely use a physical prompt so that your proximity to the student could serve as protection or defense in a potentially harmful situation.



In general, activities that require a great deal of visual concentration would not be good candidates for modeling or gestural prompts. The students would have to break their concentration to look at the teacher gesturing or modeling the correct response. Activities that require very specific motor movements are probably not good candidates for verbal prompts. Describing the intricacies of holding a pool cue, for instance, is more apt to confuse or baffle the student, whereas a simple modeling or light physical prompt would have a much higher likelihood of assisting the learner in correctly playing pool.

Selecting Instructional Consequences

We now move to the right-hand side of the operant paradigm. Many of the preceding comments on selecting prompts also apply to selecting consequences and will not be repeated here. In addition to previous cautions on the use of negative consequences, a final cautionary note is in order. All instructional consequences should be age-appropriate. Younger children can be given toys as a reward, but adolescents and adults should be given consequences typical for their age group. It is inappropriate for a 19-year-old to be putting stickers on paper or watching cartoons on television. It is also counter to any instructional model that advocates chronologically age-appropriate activities for all students.

Fading Teacher Additions

Student independence is the ultimate goal. Because teacher additions are often so successful in teaching students new skills, it is easy to overlook the importance of gradually eliminating or fading the teacher's presence. Fading refers to the process of systematically using less intrusive prompts and consequences until the behavior is elicited solely by natural consequences. Unless the student can perform the activity or skill in the absence of additional help or feedback, the skill is of no use in independent situations.

Teacher additions should be faded out as soon as the student can perform the skill with less assistance. Thus, the teacher must intentionally move to a less intrusive prompt as the student becomes more proficient at performing the skills. The teacher must also choose increasingly less intrusive consequences as the skill level is improved and maintained.

FIGURE 8.1

Prompts: Advantages and Disadvantages

PROMPT	FORM	ADVANTAGES	DISADVANTAGES
PHYSICAL	Physical contact—moving the student	Useful with: • motor tasks Useful with students who: • exhibit extraneous behavior • are visually or auditorally distractable • have few receptive language skills	Can be stigmatizing Less useful with students who are tactilely defensive
VERBAL	Statement or question	Useful with: • verbal tasks • social tasks Useful with students who: • are auditory learners • have good receptive language skills Does not require proximity to the student	Requires good language skills Requires attending skills Can be difficult to fade
MODEL	Demonstration of skill	Useful with assembly or sequencing tasks Useful with students who: • are tactilely defensive • have few receptive language skills Useful with groups of students Does not require proximity to student	Requires imitation ability
VISUAL	Information presented in visual fashion, such as written or pictoral instructions	Useful with sequenced activities Useful with students who: • have few receptive language skills • are tactilely defensive Teacher proximity or presence not required	Requires mastery of component skills No social content of instruction Less useful with students who have few visual skills
GESTURE	Motion or movement which indicates correct response	Useful with: • non-social activities • single skill tasks Useful with students who • have few receptive language skills • are tactilely defensive Easy to fade	Requires social awareness Requires visual acuity Can be too subtle
WITHIN STIMULUS	Integral part of stimulus	Useful with tasks that require judgements Useful with students who: • are visual learners • are easily prompt dependent • teacher proximity not required	Less useful with social tasks

SUMMARY

Effective instructional programs and management systems are based on teaching style, learner traits, natural and instructional environments, and so on. Characteristics common to all good systematic instructional programs include instruction that:

- Occurs on a regular and on-going basis
- Is data-based
- Is designed to meet the unique characteristics of the learner and the task
- Results in continuous student progress
- Systematically fades teacher assistance
- Results in mastery of skills in natural environments
- Increases rate and fluency once the skill is mastered
- Occurs in every situation in which behavioral change is expected.

Sound instructional methods are based on learning principles and the operant paradigm of Stimulus→Response→Consequence. Training in the natural environments aims to replace the artificial stimulus and response, given by the teacher when training in the classroom, with natural stimuli and consequences. Thus the paradigm is modified as follows: Natural Stimulus → Response → Natural Consequence.

Teacher additions are often necessary to elicit the desired response but only as supplements and not replacements to the natural conditions. Instructional prompts are added with or after the natural stimulus at the minimum level needed to elicit the desired response. Instructional consequences are added after the response at the minimum level needed to improve or maintain the rate of future occurrence of the desired response. Selecting the appropriate teacher additions requires full knowledge of learner characteristics and activity demands. Additions should be systematically faded to their least intrusive level. Complete independence is the goal.

In the next chapter we continue our discussion of the instructional process by looking at two instructional procedures that systematically apply teacher additions. We will also see that prompts need not be limited to a single side of the operant paradigm.

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CHAPTER 9

THE INSTRUCTIONAL PROCESS: INSTRUCTIONAL PROCEDURES

...teachers ought to refrain from using artificial cues such as "Give the money to the cashier," when the cashier is available to provide both natural cues and natural consequences for the behavior. Instead, the task of the educator is to help students identify and respond to natural stimuli.

It is dangerous to assume that...students who have learned to rely solely or largely on artificial cues and consequences will automatically respond to naturally-occurring antecedent and consequent events. A less dangerous assumption is that students need to receive systematic instruction in strategies related to the identification of and response to natural stimuli.

Donnellan (1984, pp.144-145)

CHAPTER 9
THE INSTRUCTIONAL PROCESS: INSTRUCTIONAL PROCEDURES

INSTRUCTIONAL PROCEDURES AND TEACHER ADDITIONS

Sheila is your 12-year-old student and one of her targeted critical activities is to buy lunch at a neighborhood taco shop. Other chapters in this manual have shown you how to break that activity into a sequence of skills appropriate for instruction, and the last chapter introduced teacher additions as useful tools to help you teach Sheila those skills. But to be effective, prompts and cues must be used systematically. To help Sheila—or any other student—advance, you must plan your use of those tools carefully.

This chapter is about systematic application of teacher additions. Two instructional procedures will be discussed. To decide which procedure is right for your student, you will also want to consider learner characteristics and whether to teach single skills or the total activity, and so those topics are discussed. We begin by returning to the operant paradigm, newly expanded, for a brief review of the behavioral approach to education.

Traditionally, teachers have artificially manipulated the contingencies of the student's response, especially in the initial stages of instruction, to facilitate learning. How each response occurs is based on information presented before the student exhibits a response (instructional prompt), after an incorrect response (correction procedure—a concept new to this chapter), or after a correct response (instructional consequence). Students have been taught in this fashion to perform innumerable skills in a variety of instructional environments.

Although the success of using a systematic behavioral approach to education is widely acclaimed, many teachers express a common lament: Students learn to perform the skill in the presence of the artificial contingencies only, not under natural cues and consequences. The ICSM encourages the use of two procedures that focus on those natural contingencies:

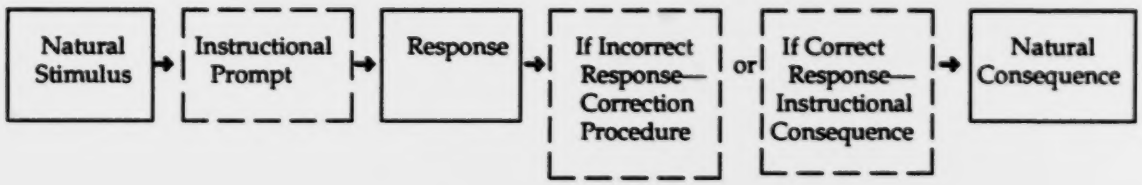
- The Instructional Cue Procedure
- The Instructional Correction Procedure

The essential difference between the two procedures is at what point in the operant paradigm the major teacher assistance is provided. As we shall see, however, it is a mistake to assume that the first procedure relies only on prompts, while the second relies only on consequences. The two procedures take their names from the fact that in the expanded operant paradigm, prompts can be administered both before and after the initial response. To distinguish between these two uses, a prompt before the first response is called a *cue*. A prompt used after an unsatisfactory response and meant to elicit a correct response is called a *correction*.

THE INSTRUCTIONAL CUE PROCEDURE

Cues, Corrections and Consequences

The Instructional Cue Procedure is a systematic instructional strategy that allows the student to participate in natural environments through the delivery of a consistent level of instructional prompts (or cues) prior to the student exhibiting the desired response.



For every learning trial (each time the natural stimulus occurs and a response is expected) the instructional prompt is given. When the student meets a predetermined criteria (for example, 85% correct for three consecutive days), then the next predetermined least

intrusive prompt is used. For example, when Lonelle has mastered drinking from a cup with a full physical prompt (90% of the time for three days), the teachers continue to instruct him using only a partial physical prompt until the criterion is met.

But this method does not rely on prompts alone. A consequence is also predetermined for both correct and incorrect responses. Sometimes you will allow natural consequences to reinforce or discourage a response. This would involve no action on your part. For example, say that Serena puts the correct change in the vending machine and retrieves a package of peanuts. Assuming that peanuts were a snack of choice for Serena, your instructional reinforcer would be superfluous because she would already have received exactly what she wanted. There are times, however, when you will want to correct an incorrect response. For example, if George dials the telephone to call his houseparent to come pick him up, and gets the wrong number, you will want to provide enough assistance to help him dial the number correctly. To opt for solely the natural consequence—George reaches the wrong number, does not talk to his houseparent, and does not get picked up—is probably not an ethical choice on your part. However, you may wish to give him several opportunities without correction before you assist him in dialing the correct number.

A correction is predetermined in case the first instructional prompt is not effective. The correction takes the form of prompt at the next level of intrusiveness. The instructor should never provide more information than the student needs. For example, if Lori was given a gestural prompt (pointing to the coat rack) for the desired response of "taking her coat off" and the prompt failed to occasion the desired response, the trainer's correction may be a direct verbal prompt ("Lori, take your coat off"), but not a physical prompt where the trainer physically guides Lori to take her coat off.

Frequently, instructional consequences are at first used in conjunction with instructional prompts to increase the likelihood of the response's reoccurrence. These consequences (reinforcers) can be anything—a smile, a pat on the back, a compliment, a favorite food, money, a toy, participation in an activity. Remember, consequences are defined as reinforcers solely by their effect on the student's behavior and not what we think is or should be reinforcing. *Reinforcers increase the behavior that they follow.*

Guidelines for Using Positive Reinforcers*

- Use functional reinforcers that are age-appropriate, easily provided in natural environments, of brief duration and whose presentation do not draw students off task.
- During the initial training sessions, provide reinforcement for every correct response, regardless if it is an assisted response or an independently performed response.
- During the initial training sessions, provide reinforcers immediately after performance of a correct response.
- During the initial sessions, also reinforce the student's attending and cooperating behaviors.
- As the student consistently performs the steps with increased independence and begins to enjoy the natural consequences provided by the response or activity, begin fading the reinforcements.

*NOTE: Reprinted from *The Ho'onanea Program: A leisure curriculum for severely handicapped children and youth* by Wuerch, B. & Voeltz, L., 1981, Honolulu: University of Hawaii. Reprinted with permission.

The Procedure in Action

An example of a teaching sequence utilizing the Cue Procedure is:

Natural Stimulus	Waitress places lunch bill on table.
↓	
Fixed Instructional Cue	Teacher partially moves student's hand (partial physical prompt) in right directions for taking out $5.00 bill
↓	
Response	Student puts $5.00 bill on bill tray.
↓	
Fixed Correction	If student does not exhibit correct response teacher physically guides student in taking out $5.00 bill.
↓	
Instructional Consequence	Teacher smiles and says, "That's the right amount of money."
↓	
Natural Consequence	Waitress says, "Thank you," and takes money.

The preceding diagram shows a single sequence and does not attempt to depict the procedure over time. In practice, however, the sequence shown would be repeated until the student had achieved a defined level of mastery (assuming no modifications of the procedure were called for). But then the sequence is repeated with a new instructional cue at a less—intrusive level. This provides for fading of teacher assistance. Over time the prompt would decrease in intensity as shown:

In the example cited, the cues might be:

- Cue 6. Partial physical prompt. (Teacher partially moves student's hand in the right direction)
- Cue 5. Minimal physical prompt. (Teacher taps student's hand)
- Cue 4. Modeling prompt. (Teacher takes money out of own wallet)
- Cue 3. Gestural prompt. (Teacher points to wallet)
- Cue 2. Minimal gestural prompt. (Teacher points to bill)
- Cue 1. No prompt needed. (Natural cue-waitress places bill on table)

Twelve Helpful Rules

The following twelve rules will be helpful when you apply the Instructional Cue Procedure:

1. Determine the types of prompts that could be helpful by assessing the student's present level of performance in the critical activity.

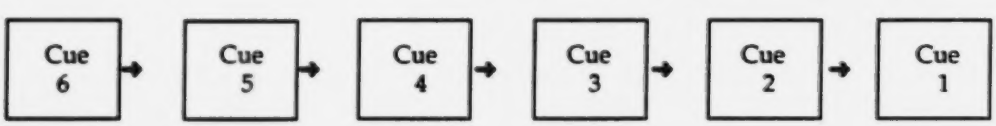
2. All prompts should be designed so that they can be faded back to the natural stimulus.

3. The level of instructional prompts should be the least intrusive to occasion a specific behavior.

4. The types and amount of assistance should be gradually reduced until the student, no longer receiving any instructional cues, performs the step in response to the natural stimulus.

5. If you must go to a correction too often, then the level of instructional prompt should be changed to a more intrusive one.

6. If the level of prompt incorporates a direct or indirect verbal instructional prompt, the trainer should *vary* what is said so that the student does not make a connection between irrelevant stimuli and the response. (For example, vary "Go to the next step" with "What's next?" "What do you need to do?" or "Finish, please.")



7. The instructional prompt should be given *immediately* before the desired response is to occur (stimulus→ prompt→ response).

8. Use the prompt consistently. Each time the stimulus occurs, a trial has started and the prompt should be employed.

9. Only give prompt(s) once. *Do not repeat* until the student responds (or doesn't respond) and the next trial has begun.

10. Once prompt(s) is given, wait three to five seconds for the student to respond.

11. If the student does not respond within three to five seconds, go to correction or instructional consequence.

12. If the student responds correctly, either implement instructional consequences or let the natural consequences be the reinforcer.

INSTRUCTIONAL CORRECTION PROCEDURE

Sequence of Corrections

The Instructional Correction Procedure provides a student with corrective information, in the form of an instructional prompt, after the student has either failed to make an initial response or made an initial response that is inaccurate. The correction procedure does not presuppose the level of assistance the student will need. Rather, the student is given the opportunity to respond as independently as possible for each trial. The teaching sequence utilizing instructional correction procedures is shown in Figure 9.1.

Note in Figure 9.1 how the teacher prompts the student (ranging from the least assistance to the most assistance) at each trial. If an error occurs, or the student does not respond, the teacher simply provides the student with the next *level* of prompt until a correct response is made. The correction procedure is fluid. Only one to three seconds passes between each level of correction, so that a trial involving all levels of correction may last only 10 to 15 seconds.

In selecting a prompt (correction) hierarchy you will want to consider some of the issues discussed in Chapter 8. Learner characteristics and task demands will influence your decision. You may choose to use a range within one type of prompt which you will implement in a hierarchy. For example, it may be appropriate to use a range of partial physical prompts in order from least to most intrusive. That sequence might be as follows: 1) a tap on the hand; 2) a slightly stronger tap on the student's elbow; 3) moving the student's arm forward six inches; 4) guiding the student's arm forward all the way to cup; and 5) the full physical prompt of getting the student to pick up a glass of water. In this case, a hierarchy of four partial physical prompts and then finally the full physical prompt were identified to teach the skill of "picking up cup." The corrections would be presented in sequence until the correct response was made. In other situations, the correction hierarchy may include verbal, gestural, and physical prompts. Regardless, the range of prompts must be ordered to allow the student to perform at the present level of skill and at the greatest possible level of independence. You should select from four to six levels of prompts that you will systematically and smoothly provide to your student during each learning trial.

The Procedure in Action

The key variable of this particular model is the level of prompt necessary for a correct response. Progress of skill acquisition is determined by a decrease in the necessary prompt level in each trial. An example of a teaching sequence utilizing the Instructional Correction Procedure format is shown in Figure 9.2.

It is not necessary to use every level of prompt for corrections. For some students you may determine that gestural, verbal and modeling prompts are unnecessary. Once you select a series of corrections you should, however, go through each correction in the series in the order you've decided until the student responds correctly.

Five Helpful Rules

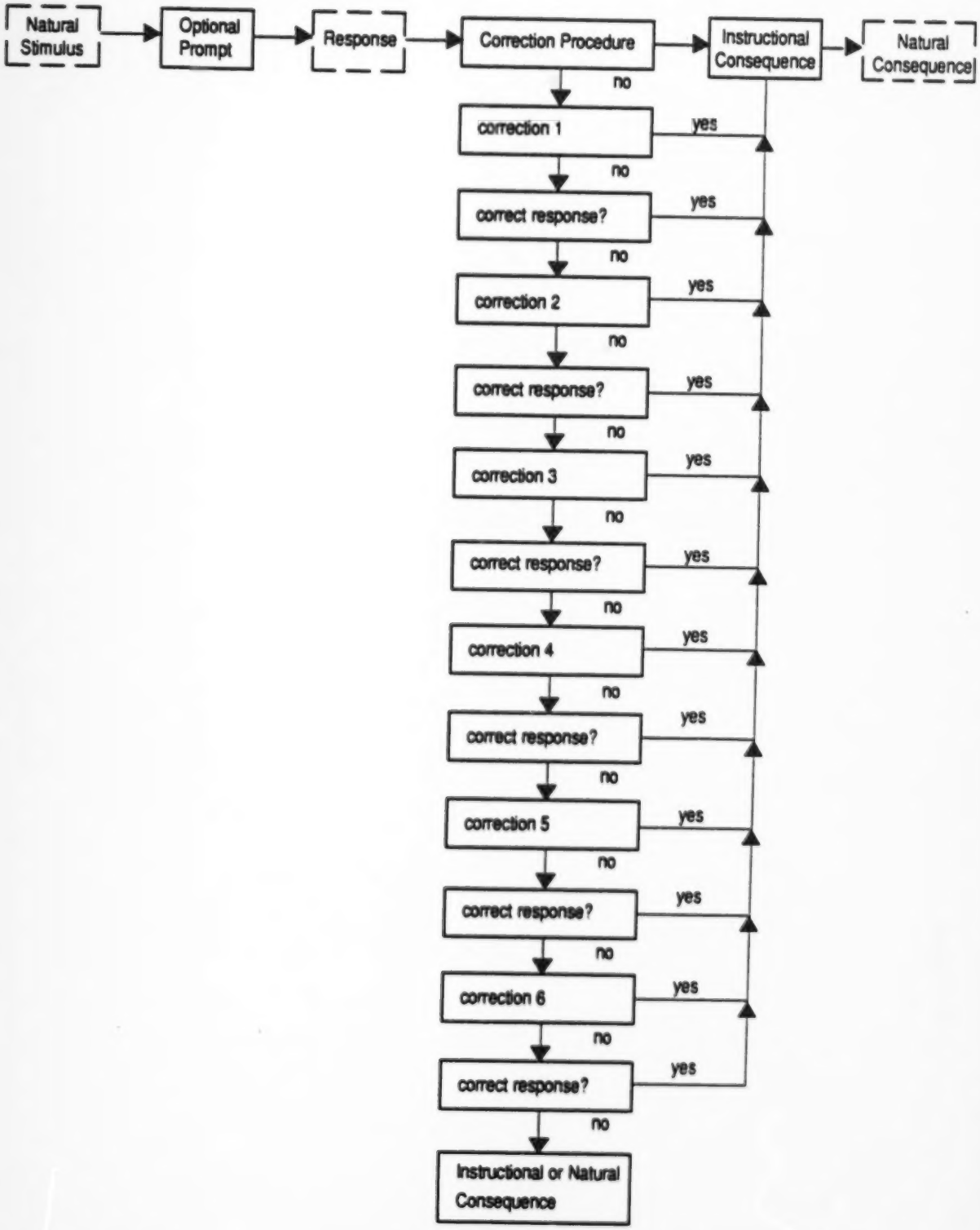
The following five rules will be helpful when applying the Instructional Correction Procedure:

1. Determine the levels of corrections to be used.

2. If the level of correction reaches indirect verbal or direct verbal, the trainer should vary what is said

FIGURE 9.1

Instructional Correction Procedure



so the student does not rely too heavily on a particular phrase. (For example, "Where's the broom?" could be varied with "Where is it?" or "Where did you put it?")

3. After the natural or instructional stimulus, wait only 3 to 5 seconds for the response to occur before initiating the correction procedure.

4. Allow only 2 to 3 seconds between each level of correction, only stopping when the desired response occurs.

5. Once the correction levels have been determined, they remain fixed and must be followed in sequence.

Whether using the cue or the correction procedure, it is important to be consistent in your teaching style. All cues, all corrections, and all consequences must be planned prior to implementing instruction. Furthermore, once an instructional plan is implemented, it must be adhered to. That is not to say that changes cannot be made, but that when they are made, they must occur systematically. If instruction is approached in a random, haphazard fashion, the student's acquisition of skills will also be random and haphazard. Systematic teaching techniques allow us to be accountable to our students, our administration, and ourselves.

In the remainder of this chapter we will consider two topics that will help you decide which instructional procedure is best for your student: learner characteristics and whether to teach the total activity or its component skills.

LEARNER CHARACTERISTICS

More traditional methods of instruction tend to focus on the task at hand as the major consideration prior to instruction. The result of this focus has been volumes upon volumes of task analysis that were presumed to be appropriate for all students needing to learn all skills. With the appropriate antecedent and consequent events (carefully manipulated and generally the same in all cases), a teacher was considered to have all the tools needed to teach relevant, adult-validated skills. We have already seen how truly relevant instructional objectives cannot, and should not, be taken from a book of lists. Neither should instructional methods. Not all students act the same or learn in the same way, and the unique learning traits of the student are equal in importance to the demands of the skill.

Fortunately, you have already collected most (if not all) of the information you need. You collected it in earlier phases of the ICSM especially in the assessment activities completed in Phase 3. That information will fall into one of three categories: student performance characteristics, student learning characteristics and student preferences.

Student Performance Characteristics

Information about how a student performs in a variety of settings may also effect how you will teach that student. You will want to consider how your student handles pressure. What happens when demands are placed on her? Does she withdraw, act out, or continue to work? Depending on the task being taught, you may want to know how your student responds in various settings: crowded, noisy, or quiet.

How fast does your student work? How consistent is his performance? What is the quality of his work, in general terms? You may wish to know what problem-solving strategies your student employs. Does he seek help? Does he stop working? Does he fake it (do something incorrectly rather than admit not knowing what to do)? Does he model or copy someone else? If he makes a mistake, does he self-correct?

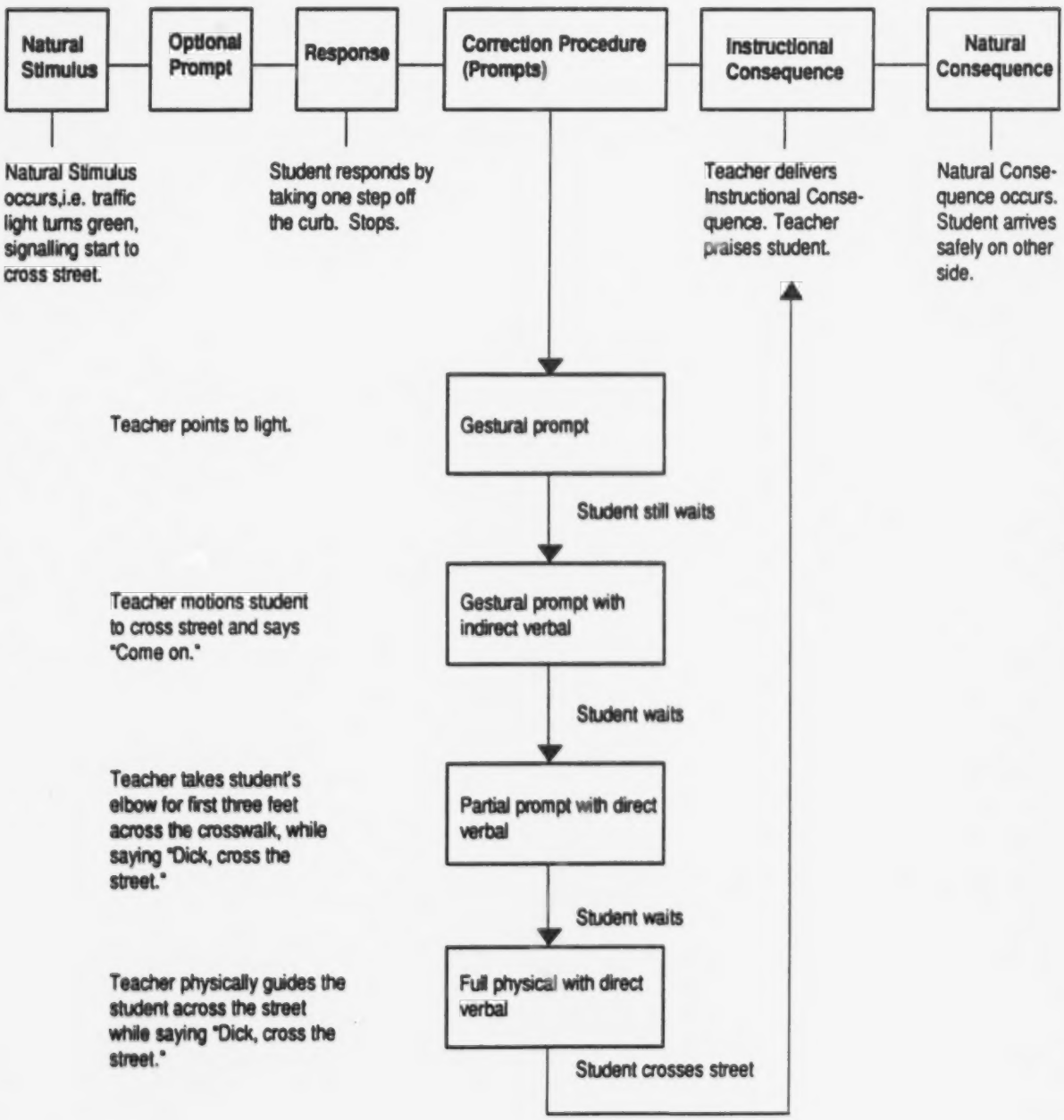
Additional considerations may be necessary if your student exhibits idiosyncratic behavior. For example, if your student fixates on certain actions or objects, you may adjust your teaching strategies accordingly. (For example, not use the troublesome object as a reinforcer.) If your student engages in self-stimulatory behaviors, you will want to incorporate a teaching strategy that includes reduction of these behaviors in the context of the task being taught. If your student exhibits obsessive or compulsive behaviors, that too will influence your teaching strategies. You may wish to use a teaching strategy that allows you to correct or intercept the compulsive behavior before it is repeated.

No matter how your student performs in the situations described above, the information regarding that performance may influence how you teach. Poor performance or inappropriate behavior should never be interpreted as a valid reason for not providing in-

FIGURE 9.2

Example: Instructional Correction Procedure

TARGET BEHAVIOR: Student will cross street when traffic light turns green.


Natural Stimulus
Optional Prompt
Response
Correction Procedure (Prompts)
Instructional Consequence
Natural Consequence
Natural Stimulus occurs,i.e. traffic light turns green, signalling start to cross street.
Student responds by taking one step off the curb. Stops.
Teacher delivers Instructional Consequence. Teacher praises student.
Natural Consequence occurs. Student arrives safely on other side.
Teacher points to light.
Gestural prompt
Student still waits
Teacher motions student to cross street and says "Come on."
Gestural prompt with indirect verbal
Student waits
Teacher takes student's elbow for first three feet across the crosswalk, while saying "Dick, cross the street."
Partial prompt with direct verbal
Student waits
Teacher physically guides the student across the street while saying "Dick, cross the street."
Full physical with direct verbal
Student crosses street

struction on targeted objectives. Information regarding student performance characteristics will effect how you teach targeted IEP objectives, not whether you teach them.

Student Learning Characteristics

Information about how your student learns can also help you make decisions about teaching strategies. The questions you need to answer might include the following: Is your student generally a fast learner? Are many trials required before a skill is mastered? What type of input is best for your student? What stimulus characteristics does your student generally attend to (verbal, visual, and so on)? How complex should this input be? Should you talk in two-word phrases or complete sentences? Should you use photographs or line drawings?

If a training history exists (if your student has had any previous instructional experiences), most of this information should be available. What you will want to find out are your student's learning patterns. You need to identify predictable responses to settings and situations so that you can determine how to make the best use of the brief instructional time you have with each student.

Student Preferences

Finally, you will want to consider your student's preferences. You will want to consider what activities your student likes (from a task and reinforcement standpoint), what foods and drinks, and what environments to work in. How your student likes to work and play (in groups, alone, or in pairs) is also important.

HOW MUCH OF THE ACTIVITY DO YOU TEACH?

Providing Adequate Learning Opportunities

A popular teaching technique in the 1960's and 1970's which resulted in the quick acquisition of new skills was known as massed trial teaching. This instructional method advocated massing learning trials together so that the student would receive approximately 20 opportunities in rapid succession to perform the same task (assemble 20 ball point pens, fold 20 towels, set a place at the table 20 times, and so on). While such instruction did result in skill acquisition, by its very definition learning rarely took place in natural environments.

Providing community-based instruction has changed how we teach. Buying a hamburger 15 to 20 times a day is time-consuming, expensive and unreasonable. How then do we provide adequate learning opportunities while still maintaining a naturally occurring frequency for our student's targeted behaviors?

Suppose, for example, that you want to teach a student to buy his lunch. Several steps are required to perform the activity (such as taking wallet out of pocket, opening wallet, taking out money, paying waitress, closing wallet and putting wallet back in pocket.) There are two ways to teach the activity: by teaching each single skill or by teaching the total activity.

Single Skill vs. Total Activity

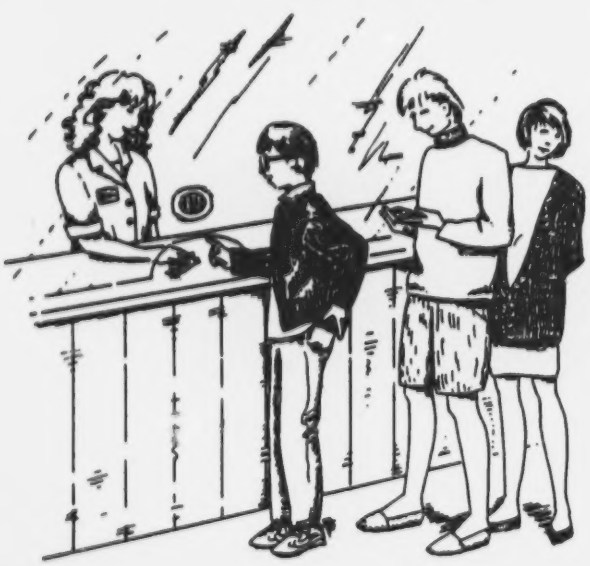
A single skill is one component of an activity (such as opening the wallet). A total activity is the entire sequence of components required to complete the activity (such as taking out the wallet, opening the wallet, taking out the money, paying the waitress, closing the wallet, and putting the wallet back in pocket).

When learning single skills, the student must reach the criterion on each skill before being introduced to the next component of the sequence. Compo-

nents are taught in isolation, and chained together to make up a more complex behavior. This is often the way in which more complex behaviors are taught: One simple behavior or single skill is learned, then another is added to it, and then another, and so on until the complete chain is formed.

When learning the total activity, the student completes the entire sequence of components in the activity during each trial. For a student to perform the total activity, the teacher must provide varying levels of assistance as the student attempts the components not yet established or developed. For example, Morgan is learning to buy lunch at a fast food restaurant. Presently his teacher provides gestural and verbal prompts for most steps in the sequence (points to the counter, taps his communication board, says, "get your money out," and so on). Morgan still requires a full physical prompt to get his wallet from his pocket. In any one teaching sequence (from walking into the restaurant to sitting at the table) his teacher will use a differing level of assistance for each component in the trial.

Using a combination of both teaching methods, where total activity presentation is given on a regular basis (Morgan buys a hamburger three times a week), but where single skill trials are practiced separately for the more difficult components (Morgan takes the wallet out of his pocket 15 times a day) insures contextual references for the skill sequence yet allows for the necessary repeated practice which many students require. Opportunities throughout the day can be provided that require the difficult action. Morgan can be asked to show his bus pass, keep change for a soft drink, be asked to count his money ("Do you have enough money for the vending machine?"), show pictures of his family and friends or keep tickets for school events. All of these activities require that Morgan take his wallet out of his pocket and allow for valuable additional instruction.



DECIDING WHICH PROCEDURE TO USE

Choosing the proper instructional procedure can save you and your student valuable instructional time. You want to select a procedure that will provide enough information to the student and also allow the student to progress at a reasonable rate. No matter which procedure you select, you will want to provide the least intrusive assistance possible. The ultimate goal of any instruction is to have the desired response maintained by natural stimulus and natural consequence events.

Knowing something about the learning characteristics of your student will help you determine instructional methods. The student's learning rate and typical prompt levels should influence your selection of instructional procedure. Generally speaking, the faster the learning rate of the student, the more successful you will be with the correction procedure. The slower the learning rate, the more successful you will be with the cue procedure.

Determining the student's prompt level will also help with your decision. If you are unsure of the prompt level, start instruction using the correction procedure. Present all levels of prompts at each trial. If the student demonstrates success with a range of prompt levels, the correction procedure is more appropriate. If the student consistently performs at one prompt level, the cue procedure is the more appropriate.

Generally, it is more difficult for a student to perform a total activity than a single component. If total activity training is used, it is important that the student be responding correctly a sufficiently high percentage of the time to assure reinforcement. If such is not the case, move to single component training. Be aware, however, that single component training can be a slow process and may actually hold a student back unnecessarily.

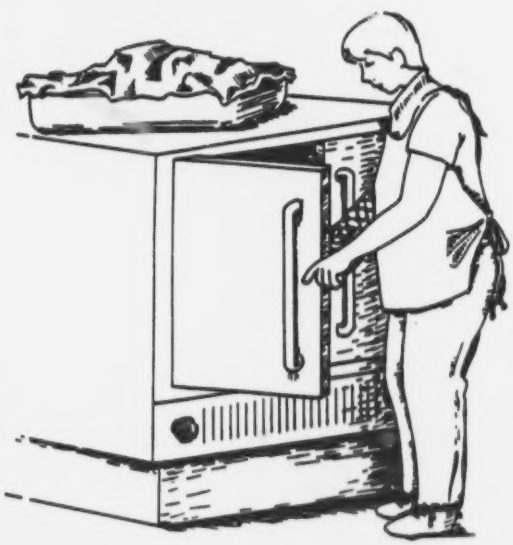
A general rule of thumb as to which procedure to use, and how much to teach, is illustrated in the

following sequence:

1. Total Activity—Instructional Correction Procedure
2. Total Activity—Instructional Cue Procedure
3. Single Skill—Instructional Correction Procedure
4. Single Skill—Instructional Cue Procedure

Determine where in this sequence to begin, and adjust upward if the student is progressing rapidly. Adjust downward if the student is having difficulty acquiring the targeted skill.

Let's say that you are teaching 10-year-old Jessica to feed herself. You and the occupational therapist determined that a spoon with a built up handle would be easier for her to use. You started teaching her to lift a partially filled spoon from her bowl to her mouth using a single skill-instructional correction procedure strategy. Her performance fell well below your fail criterion (70% for two consecutive days). She only performed at the 20% level the first two days of instruction. You decided to switch to the single skill-cue procedure where you would physically prompt each response. She rapidly improved in her performance and you could then systematically fade the prompts.



With another student, Tom, you were using the total activity-cue procedure where you prompted him along each step of cleaning the restroom. After a few short days of instruction, it became apparent that intervention on your part through each step of the activity was unnecessary. You moved to a total activity-correction procedure strategy and found that Tom could perform the activity satisfactorily with a minimum of assistance on your part.

SUMMARY

Sound instructional methods are based on learning principles and the operant paradigm of: Stimulus ➔ Response ➔ Consequence. From that theoretical framework two instructional methods have emerged: The Cue Procedure is an instructional strategy where assistance is given *before* the student exhibits the desired response. In the Correction Procedure, instructional prompts are given to the student *after* the initial response has been made and *if* the initial response is incorrect. Prompts are always matched to learner characteristics and task demands. The goal of any instructional strategy is to teach the skill so that it is elicited and maintained by natural contingencies. In both procedures discussed, artificial stimulus and consequent events are systematically faded to allow for that to occur.

Skills can be taught as either single components (one skill within an activity) or total activity (the entire sequence of skills in an activity). Deciding which instructional procedure to select and how much of the activity to teach is based on the learning characteristics of the student. The student's prompt level(s) and learning rate also affect the decision you will make.

The chapter ends with a sequence of four options, each composed of one of the two procedures and either the single component or the total activity approach. Teachers can begin the student in the sequence as appropriate and adjust up or down a level as warranted by student progress.

In the next chapter we complete our discussion of the instructional process by looking at how to develop written instructional programs and measurement systems.

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CHAPTER 10

THE INSTRUCTIONAL PROCESS: WRITING IT DOWN

Programs which use a low inference teaching model are based on less dangerous assumptions than those which rely heavily on high inference strategies. Programs are more educationally defensible when they rely on empirical verification of ability, utilize appropriate adaptations to facilitate participation, and teach skills in the behavioral and social contexts in which they will ultimately be needed.

Donnellan (1984, p. 146)

What's Wrong with This Picture ?

Mrs. Schell regularly took a group of three students to clean tables before business hours at a local pizza house. By the end of the school year she was happy to report that she thought two of the students had gotten better, but that the third student was still having difficulty. She could not, however, support her observations, and was unclear as to how the students had improved. As far as the third student, she could only say that he was still having trouble getting cleaning materials and following directions.

CHAPTER 10
THE INSTRUCTIONAL PROCESS: WRITING IT DOWN

WHAT'S WRONG WITH THIS PICTURE?

Imagine for a moment giving last minute instructions to your assistant, Mark, as he is walking out the door taking two of your 10-year-old students to buy lunch in the school cafeteria. You are trying to tell him that Charlene needs a partial physical prompt to get the money out of her purse and how Rico should be corrected if he does not show the cafeteria worker his picture of what he wants to eat using a four-step correction procedure. As you are trying to tell your assistant how to provide consequences for Charlene, Mark is walking out the door, nodding his head up and down to acknowledge you, and then he yells from the end of the corridor, "What about prompting Charlene to carry her tray to the table?" By this time your reply is lost in the din of school children filling the hall on their way to lunch, and meanwhile two peer volunteers and a student teacher are asking you similar questions about your eleven other students.

What's wrong with this picture, of course, is that your assistant had absolutely no idea how he was going to help Charlene and Rico accomplish their designated tasks prior to walking out the door with them, and unfortunately you would end up having absolutely no idea whether your students were going to receive the precise, systematic instruction you had intended for them. Your assistant needed to have a written plan to review, or even take with him, that would specifically spell out what he was to expect of the students, and what he was to do to ensure and encourage the correct behaviors.

By this time in the ICSM process you should have a fair idea of *how* you will teach your students. You are armed with the information that enables you to provide systematic instruction for critical skills. You should feel confident in the knowledge that the instructional procedures you use are based on sound educational theory, have been validated by hundreds of professionals in the field, and are representative of current practices for quality education. This chapter formalizes the instructional process by describing how to develop written instructional programs and measurement systems.

PLANNING THE INSTRUCTIONAL PROGRAM

Instructional programs are preplanned, written descriptions of exactly what you want the student to do and of exactly how you will elicit, maintain, and correct the student's responses. Instructional programs are the lesson plans you will be using throughout the instructional day. They should be concise and easy to understand, yet still provide enough information to effectively implement the program.

There must be specific instructional programs for each activity being taught to each student. As learner characteristics vary from student to student, so will the instructional plans. Even when several students are receiving instruction on the same activity, instructional cues, corrections, and consequences will differ for each student. With a written program indicating exactly what the teacher is to do, exactly what response is expected of the student, and exactly how that response will be consequated, you can ensure that instruction will be more accurate and efficient.

A written instructional program provides a history of the student's learning style (types of prompts, corrections, and consequences used) and documentation for parents, staff, and administrators on what and how each student will be taught. Properly completed instructional programs also serve as excellent lesson plans and training aides for substitutes, teaching assistants, DIS personnel, and volunteers. Keep your student's instructional programs in an accessible location so that they can be reviewed daily and updated on a regular basis. It may look neat and efficient to have cleanly typed instructional plans in color-coded folders in your file cabinet. But if these plans are not used and reviewed on a daily basis, systematic instruction will not be taking place. Plans may stay neat and clean in the file cabinet, but the student loses out.

Writing the Plan

How you write your instructional plans is a matter of personal preference and style. Plans should be written in a simple, concise form that is easily understood. Good instructional plans should include

enough information so that someone unfamiliar with the activity could provide instruction. Plans should include some general information about the student and the activity (infused objective, program modification criteria, natural environments, instructional environments, and basic skills procedures) and specific information about the activity, teacher and student expectations (student response, materials required, prompts, corrections, instructional consequences, and natural cues and consequences).

You will probably want to design an instructional program form that best meets your personal needs. The ICSM Instruction Plan Sheet is provided as a sample, and you may use or modify it to suit your needs. There are many possibilities and you should design a form that works best for you. Do not, however, fall into the trap of serving your forms instead of making your forms serve you. Do not lose sight of your first priority—providing quality instruction for your students. Your Instruction Plan Sheet should help you do that efficiently and effectively.

The ICSM Instruction Plan Sheet is provided as a model to assist you in preplanning a relevant instructional program for each critical activity. The Plan Sheet has two major components:

Activity/Objective Information Sheet

(Figure 10.1) which includes:

Activity: Name of activity.

Student: Name of student.

Infused Objective: Directly from the IEP.

Basic Skill Procedure: Since Basic Skills may be infused in critical activities, this space is to note procedures of Basic Skills in this activity.

Day: The days in which this program will be implemented.

Approximate Duration of Activity: How long the entire activity will take to instruct.

Natural Time of Occurrence: The time the activity would naturally take place (refer to the Activity Analysis).

Natural Environment(s): Environments in which the activity will ultimately take place (refer to the Activity Analysis).

Instructional Environment(s): Environments in which the student will be trained—record this only if different than natural environment.

Adaptations: Any skill, activity, or materials adaptation you will be using.

Behavior Management: A specific description of any strategies you are presently utilizing to change behavior.

Reinforcement Schedule: How and how often to reinforce particular behaviors.

Program Modification Criteria: Established criteria representing range of student responses, above or below which the program should be modified.

Program Review Dates: Frequency of program review.

Trainer Proximity: Description of the trainer's location in relation to the student.

Probe Data: When and how you will conduct trials in natural, noninstructed environments to enhance generalization of specific skills.

Instructional Plan Sheet

(Figures 10.2 and 10.3), which provides space for:

Response: Each sequence of skills in the activity that you expect the student to perform (only one skill per box).

Materials: Any materials that will be needed for instruction.

Prompts: When using the cue procedure, indicate the prompts, if any, for each step you will be using (include prompt variations; see Figure 10.2).

Corrections: When using the correction procedure, list the series of corrections you will be using for each step (see Figure 10.3).

Instructional Consequences: List the consequences, if any, you will be using (include variations).

FIGURE 10.1
WORKSHEET 19

ICSM Instruction Plan Sheet
Activity/Objective Information

Activity: Making Toaster Waffles

Student: Lori

Infused Objective:

Given a toaster plugged-in on the kitchen counter, Lori will be able to make toaster waffles without prompts or adaptations on any skill (100%) for 3 consecutive trials. Infuse the Basal Skills of: walk at appropriate pace

Basic Skills:	Procedures:
1. walk at appropriate pace	reinforce at each occurence
2.	take data on probes 1 x week
3.	
4.	
5.	

Day: M T W Th F Sa Su

Approximate Duration of Activity: 10 minutes prep./15 minutes eat

Natural Time of Occurrence: 7:15 am

Natural Environment(s): group home

Instructional Environment(s): group home/school lounge

Summary of Program Procedures:

Adaptations: none

Behavior Management: praise "walking faster"

Reinforcement Schedule: each occurence

Program Modifcation Criteria: + 85% 3 consecutive days
- 70% 2 days

Program Review Dates: 3-89

Trainer Proximity: within 5 feet

Probe Data: Probe walking once a week; making waffles once a week at group home; trainer 15-20 feet away.

Depending on the length of the activity that you are teaching, your instructional plans for one activity may run to several pages. If you are teaching a single component, you will only be using one sheet at a time. If you are teaching the total activity, you will be using several sheets.

Do not assume that the prompts, corrections, and consequences will be the same for each response. You must think through every step of the procedure and plan accordingly what your involvement will be. The information you have regarding the student's basic skills and present level of performance in the critical activity will help you make your initial plan. Review the activity analysis, the student's performance of each skill, and any comments that you jotted down.

In filling out an Instruction Plan Sheet, you may find it helpful to first write down all the steps in the skill sequence you will be teaching. For example, if you are teaching bed making, record each student response from the activity analysis in the response portions of your plan sheet. Then go back and step by step, write down how each step will be cued and consequated. Do not forget to include natural cues and consequences in your thinking process. Remember that your ultimate goal is for the skill to be maintained in the natural environment.

Writing instructional plans can be time consuming at first. Once you are familiar with the instructional procedures, however, it becomes easy to complete the plan sheets. When you are responsible for teaching so many activities to so many students, you will find it extremely helpful to have all the details of what and how to teach so thoroughly described.

By reviewing your plans daily, you can enter each instructional situation confident that you will be maintaining consistency of instruction. By using the prescribed levels of prompts, corrections and consequences you are ensuring that the learning which takes place is the result of thoughtful, consistent application of learning principles and not haphazard, casual or incidental teaching.

MEASUREMENT SYSTEMS

A major tenet of the ICSM is that student learning is directly correlated to the effectiveness of the instructional program and is not correlated to the characteristics of the student. Effective instructional programs facilitate and improve the student's performance in natural environments. Ineffective instructional programs do not improve the student's performance in natural environments. How do you know if your instructional program in effective? Effectiveness can only be determined by the collection of *objective* information pertaining to the student's actual performance of a critical skill or basic skill. Taking data is the only way you will know exactly how your student is performing.

Before implementing your instructional plan, you will need to devise a method for collecting objective information about the student's progress. Measurement systems are designed for two purposes:

1. To enable teachers to collect direct performance data on student learning.

2. To enable teachers to make decisions regarding the effectiveness of the instructional program and, therefore, to make necessary modifications in the program when:

    - the student has reached the determined criteria and therefore has met the objective, or
    - the student is not progressing (learning) at a desired rate and therefore the instructional program is in need of modification.

Measurement systems can be as simple or as sophisticated as you choose to make them. A wealth of information is available on the subject, and you are encouraged to review current literature to help you decide which measurement systems will be best for you.

Data Collection

Avoid the temptation to collect data for data's sake. You've probably seen the teacher with the clipboard, stopwatch, and pocket counter so busy marking, checking, and clicking that she forgets to teach her students. Data is only as useful as it is easy to record. If the system is too cumbersome, data will not get taken, and you will not be able to make appropriate, objective decisions about your student's instructional programs.

Data need not and should not be taken on every aspect of a student's behavior. You should record your student's performance in instructional activities

FIGURE 10.2
WORKSHEET 20

ICSM Instruction Plan Sheet

Activity: Setting the Table Student: Barbara

Materials:	Table / plate	table / plate / fork	Table / plate / spoon fork		
Prompts	"set the table" P.P - lifts student's hand to grasp plate. Release 3" above table.	"get a fork" P.P. - lift student's hand to grasp fork. Release on left side of plate.	"get the spoon" P.P. - lift student's hand to grasp spoon. Release on side of plate.		
Response(s)	Places plate on table in correct position.	Places fork to left of plate.	Places spoon to right of plate.		
Correction(s)					
Ins. Cons.	"Thats' right"	"All right!"	"Good going"		

FIGURE 10.3
WORKSHEET 20

ICSM Instruction Plan Sheet (p. 2)

Activity: Setting the Table Student: José

Materials:	table / plate	table / plate / fork	table / plate / fork / spoon		
Prompts					
Response(s)	Places plate in correct position	Places fork to left of plate	Places spoon to right of plate		
Correction(s)	1. Physically guide putting plate on table. 2. Ask hand toward plate 3. Model plate on table 4. Point to plate & table 5. Unindependent	1. Physically guide putting fork on table 2. Put student's hand on fork 3. Model fork on table 4. Point to fork & table 5. Unindependent	1. Physically guide putting spoon on table 2. Put student's hand on spoon 3. Model spoon on table 4. Point to spoon & table 5. Unindependent		
Ins. Cons.	"Good"	"That's right"	"Great!"		i..

on a regular basis. Your student's performance in basic skills should also be recorded periodically. You do not have to record how many people say "hi" to your student at the shopping mall or how often he changes channels on the television (unless these are targeted critical skills for instruction). Remember, the purpose of data collection is to provide you with the necessary information to make sound educational decisions. Don't overdo!

The data collection system you select will depend on the task, the learner, and your own personal preferences. There are, however, characteristics common to all good data collection systems. Good data collection systems are:

Accurate. The data collected measures what is supposed to be measured. That is, the number of times an event occurs, the level of assistance needed to make a response, how long an event takes, and so on.

Reliable. The data method selected is such that two independent observers watching the same situation, given the same instructions as to what behaviors to look for and how to record what they saw, would come up with very close, if not identical, data.

Relevant. The data collected provides necessary information regarding the student's performance. You measure only the dimensions of the response you are interested in (such as duration, accuracy, frequency, level of independence, and so on) — not information about a behavior that you are not particularly interested in.

Practical. The measurement system developed can be easily manipulated within the instructional setting. If you are using two-handed, full physical prompts, you will want a recording system that requires the least amount of materials to carry and handle.

Efficient. The data collection system should provide the most amount of pertinent information with the least amount of effort.

It is important to have a data collection system you are comfortable with. If the data collection method you choose is cumbersome, impractical, complicated, or does not give you the information you want, you will not use it, or make educational decisions based on objective performance data. Make your data simple, make it relevant, and take it every day! You must have ongoing objective information to make the best educational judgments about your student's instruction.

Taking Data in Natural Environments

Taking data in natural environments can pose some problems, particularly if you are trying to remain unobtrusive. Following your students around the grocery store with clipboards and stopwatches flying is not exactly discreet. But trying to memorize student performance until you can get back to school and record them is not realistic either. There are some tried and true alternatives:

1. **Mini-data sheets.** Reproduce a portion of the data sheets on a 3x5 or 4x6 card.

2. **Wrist or pocket counters.** These may be purchased at sporting good stores. You simply punch a button for each correct response.

3. **Pocket calculator.** Punch in the number for the level of correction. As long as you don't touch a function button the display will hold data for you. For example, if your student's program has six steps and she required a level 4 correction on the first four steps and a level 5 correction on the last two, you could punch in: 444455. You could transcribe the displayed numbers later.

4. **Pocket-sized cassette player.** Record the data verbally and transcribe it later.

FIGURE 10.4
WORKSHEET 21

ICSM Intra-Activity Sequence and Data Collection Worksheet

Name: Wessam Date Initiated: 10/7/88

Critical Activity Labeling items in Materials Supply - Center Hospital

Date: Natural (N), Simulated (S) Environment:

Response/Response Variations	10/7	10/8	10/9	10/13	10/14	10/15										SUMMARY
walk to entrance	+	+	+	+	+	+										
locate station	0	-	-	+	+	+										
locates carton	0	0	0	+	+	+										
locates labels	0	-	+	-	-	+										
carries wok to station	-	-	+	+	+	+										
walks to available chair	0	0	-	-	-	+										
pushes chair to station	-	+	+	+	+	+										
picks up available basket	0	0	-	-	+	+										
carries basket to station	-	+	+	+	+	+										
opens carton	0	0	0	-	+	-										
removes item	-	-	+	+	+	+										
peels off label	-	-	-	-	-	-										
labels item	+	-	+	+	+	+										
places labeled item in basket	-	+	+	+	+	+										
SUMMARY	2/14	4/14	8/14	9/14	11/14	12/14										
%	15%	28	57	73	78	85										

FIGURE 10.5
WORKSHEET 21

ICSM Intra-Activity Sequence and Data Collection Worksheet

Name: José Date Initiated: 2/1/89

Critical Activity: Setting the Table

Date: Natural (N), Simulated (S) Environment:

Response/Response Variations	2/1			2/2													SUMMARY
places plate on table	2	2	3	2	3	4											
places fork to left of plate	2	2	2	2	4	4											
places spoon to right of plate	2	2	2	2	4	4											
Corrections:																	
7 Independent																	
6 Gestire																	
5 Model																	
4 Tap hand																	
3 Guide arm																	
2 Partial guide hand																	
1 Full Physical																	
SUMMARY	6/21	6/21	7/21	6/21	11/21	16/21											
%	23	23	30	23	49	76											

Recording Your Data

As with instructional plan sheets, the data collection sheet you use will depend on your personal style and your specific needs. You will most likely be designing a form that best serves your purposes.

For collecting data on the instructional procedures described earlier in this chapter, sample data sheets are shown in Figures 10.4 and 10.5. To use these forms, write the student's name, date, and critical activity in the appropriate spaces. In the columns at the left of the page, write the components of the instructional program. If you are teaching a single component, you will write only one skill. If you are teaching the total activity, you will write all the skills in the sequence (Figure 10.4). If you are using the correction procedure you may write the levels of prompt you are using at the left side of the vertical columns (Figure 10.5) "Independent" should always be written above the least intrusive prompt. Number your prompts 1 - x (where x equals however many prompts you have listed), with "Independent" receiving the highest number. In this way when recording your data, your student's independent performance of any particular skill will receive the highest ranking or score.

For recording and summarizing performance data for the cue procedure, you simply want to know if your student performed correctly, incorrectly, or made no response at all. You can record this information by:

1. Mark "+" for a correct response.
2. Mark "-" for an incorrect response.
3. Mark "0" for no response.
4. Adding the number for correct responses.
5. Dividing by the number of total responses to give you the percentage of correct responses.

Percentage of Correct Responses—
Cue Procedure

$$\frac{\text{Number of correct responses}}{\text{Total number of responses}} = \%\ \text{correct}$$

For example, if in ten responses the student received six pluses, three minuses, and one zero, the percentage of correct responses would be:

$$\frac{6}{10} = 60\%$$

For recording and summarizing performance data for the correction procedure, you will want to know what level of independence or assistance your student required. You can record this information by:

1. Assigning a numerical ranking for the levels of correction with "independent" receiving the highest number.
2. Recording the number corresponding to the last prompt used in the sequence that elicited the desired response (this number could vary over several trials).
3. Multiplying the total number of steps in the program by the numerical ranking you gave "independent."
4. Adding the prompt level rankings you recorded for each trial.
5. Dividing the total for the student's trials by the total possible to give you your student's level of independence in a percentage correct figure.

Percentage of Correct Responses—
Correction Procedure

$$\frac{\text{Sum of student responses}}{\text{"Independent ranking" x Number of steps}} = \frac{\%\ \text{correct}}{\text{level of independence}}$$

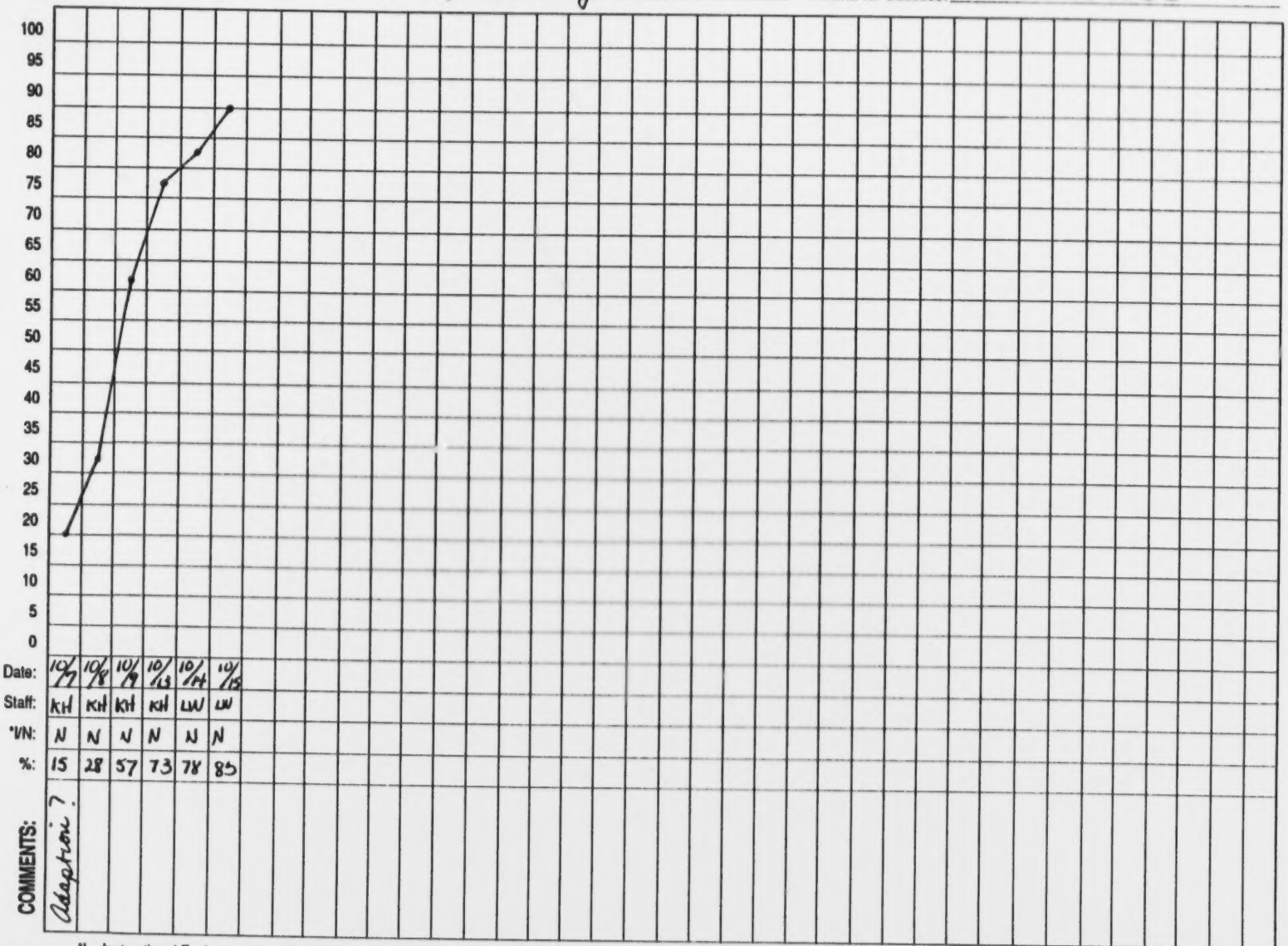
For example, if, in a ten-step program where "5" was assigned to the "independent" ranking, the student received a total of 40, the level of independence or percent correct would be:

$$\frac{40}{10 \times 5} = \frac{40}{50} = 80\%$$

FIGURE 10.6
WORKSHEET 22

ICSM Data Summary Graph

Student: Wissam Activity: Labeling items Criteria for Success: 100% correct



Date:	10/17	10/18	10/19	10/13	10/14	10/15
Staff:	KH	KH	KH	KH	LW	LW
*I/N:	N	N	N	N	N	N
%:	15	28	57	73	78	85
COMMENTS:	Adaptation ?					

*I = Instructional Environments N = Natural Environments

Graphing the Data

To easily interpret the data you have collected, it is helpful to plot that data on a performance graph. Instead of looking at only a series of numbers, you can then look at a learning curve which gives an immediate and easily understood picture of how your student is performing.

Some teachers prefer to have the graph on the same sheet of paper as the data collection form. Others prefer the graph on the reverse side of the data sheet, or on a separate sheet of paper all together. Again, utilize the system that works best for you. To use the graph (Figure 10.6) simply label the horizontal axis with the dates on which data was collected, and mark a dot at the point that represents one day or one set of data. Connect the data points with a line, and you have the student's learning curve for that particular activity.

Other Types of Data Collection

Although percentage-correct data may be useful in the majority of cases, you may want to collect other types of information in relation to the performance of a student on a particular skill or activity. Performance information can be collected on a number of variables:

1. **Frequency and Rate.** A frequency will tell the trainer how often the behavior occurred during a given interval (example, the number of electronic circuits assembled during a given work period). Rate is determined by *dividing* the frequency by the number of minutes of the interval; the result is the frequency per minutes.

2. **Duration.** Duration measures how long a certain behavior lasts, or the length of a behavior. (For example, information may be needed to determine if an instructional strategy is effective in relation to how long a behavior occurred—such as Lori's use of her left arm. "Does Lori use her left arm?" could be answered by a Yes/No, but often we will need more information: "How long does Lori use her left arm?")

3. **Latency.** Latency measures provide information regarding the time between a stimulus and its response. How long does it take after the counter person asks, "May I help you?" for Lori to respond with her order?

Establishing Modification Criteria

There is no magic formula that will tell you if and when an instructional program needs to be modified. That need will vary from activity to activity and student to student. You must, however, be able to decide what level of performance will indicate success. If you do not establish criteria levels and do not record and evaluate data on a regular basis, you may think students are not learning when in fact they are or you may prematurely stop instruction thinking mastery has occurred when in fact it has not.

There are a variety of ways to establish criteria for measuring and evaluating the effectiveness of an instructional program. Most methods share some common features. Modification criteria are:

1. **Objective.** Based on performance data.

2. **Arbitrary.** There are no fixed levels of success; however, decisions are based on sound educational judgment.

3. **Flexible.** Can be altered based upon performance data.

You can get clues as to appropriate criterion levels from the natural environment. Society allows a wide range of acceptable levels of behavior, depending on the activity or the place. For example, loud, raucous behavior, while not appropriate in a movie theater, certainly can be the norm at a baseball or football game. What is considered acceptable penmanship varies from individual to individual (as any pharmacist attempting to decipher prescriptions will attest to). Certain activities allow a broad range of success (penmanship, social behavior, cooking, grooming, and so on). Even with a lenient criterion, however, society always has spoken or unspoken standards (there is behavior that is too loud at a ball game, writing that is too sloppy, food that is not cooked enough or cooked too long, and so on).

Some activities require a rigid criterion for success. Chambermaids at certain hotels, for example, must clean the rooms to a very precise standard of cleanliness, and it must be done correctly 100 percent of the time. Crossing the street, because of the potential danger, is another task that must be done correctly 100 percent of the time. Labeling items for billing at a hospital central supply must be done correctly 100 percent of the time, or patients will be billed for items they did not use.

Determining criteria involves analyzing the natural contingencies of the skill and assigning a reasonable percentage or numerical ranking to show successful performance. Criterion levels for mastery may be something like 100 percent of the time for five consecutive days, or if an element of human error or individuality is allowed, perhaps 90 percent of the time for three consecutive days. Again, there is no wrong or right answer. You must select a level that is reasonable and logical.

When establishing modification criteria, you are determining at what point you feel comfortable in saying mastery has occurred, as well as at what point you feel the student is performing at an unacceptable level. For example, if Joseph is learning to feed himself, and he only gets the spoon to his mouth two out of ten times (or 20 percent of the time), he is having relatively few successful experiences.

The ICSM is based on the notion that if students are not learning, the instructional program (either in terms of cues, consequences, or response expectations) needs to be altered to ensure success. When these alterations are necessary is based on a preestablished criterion level. How these alterations are made is discussed in Chapter 12.

Generally speaking, your students should always be performing above the 50 percent level. If they are not, they are failing more often than succeeding. Modification criterion levels should fall somewhere between the ranges of 65 and 70 percent and 85 to 100 percent. If you can visualize a range within which a student's performance level is considered appropriate for learning to take place, then performance either above or below that range indicates change is needed on your part (provide either more or less assistance) until success is reached.

Generalization Probes

The purpose of instructional programming for individuals with severe handicaps is not only to facilitate learning in instructional environments but also to ensure generalization to natural environments. Data should be systematically collected on student performance in environments that have not been used as training or instructional environments. For example, if Gregg is learning to sweep the floor at the school cafeteria and at a teacher's home, then probes to environments that have not been used as training environments (his home, a restaurant, his church) should be undertaken on a regular basis to determine if he can sweep correctly in several different settings of the activity. A probe provides you with data regarding the student performance in similar but untrained instances of the activity.

SUMMARY

Instructional programs are preplanned written descriptions of exactly what you want the student to do and exactly how you will elicit, maintain, or correct the student's response. Instructional plan sheets are developed prior to implementing instruction. The plan sheets specifically state the desired response of the student, as well as listing any artificial cues, corrections, or consequences that will be employed to facilitate that response.

To determine if the instructional plan is effective, objective information on the student's performance will have to be collected. Data can be collected on the student's performance in the targeted critical activity, as well as on frequency, rate, duration, and latency of responses. Any data collection system you develop should be accurate, reliable, relevant, practical, and efficient. Once data is collected, it can be graphed for easier viewing and interpretation.

Modification criteria are established to provide ranges of student performance that indicate learning is taking place, and that instructional contingencies are at an appropriate level to maintain learning. When student performance falls either above or below the established range changes in the instructional procedure must be made. Generalization probes should be periodically made to measure student performance in similar but untrained instances of a critical activity.

In the following chapter we will see how to maximize instructional time by effectively scheduling and implementing instructional programs and measurement systems.

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CHAPTER 11

SCHEDULING AND IMPLEMENTING INSTRUCTIONAL PROGRAMS

In order to adequately address the criterion of the least dangerous assumption, educators should utilize a variety of instructional arrangements which approximate the ratios typically encountered in nonschool environments, and should systematically teach students to perform in the absence of instructional staff. In addition, educators should assume that instructional dead time adversely affects student performance, and should seek to minimize the amount of dead time by decreasing dependence on one-to-one instruction.

Donnellan (1976, p. 145)

What's Wrong with This Picture?

Ordering food at a fast food restaurant is an objective on Joshua's IEP. Because of scheduling and logistical foul-ups, Josh has only received an opportunity to order at a fast food restaurant three times in the last semester. His teacher felt that possibly she could simulate the ordering process at the school cafeteria instead. For his year-end evaluation Joshua was taken to a neighborhood fast food restaurant and could not order lunch for himself.

CHAPTER 11
SCHEDULING AND IMPLEMENTING INSTRUCTIONAL PROGRAMS

STARTING OUT

By this point in the ICSM process, you will have a good picture of each student's instructional needs, each student's instructional programs, and maybe even how you will teach the instructional programs—but you may still be asking yourself, "How in the world will we be able to get all this done for *one* student, let alone *ten* others?" You're not alone in pondering the question of scheduling. While you may feel like quitting before you start, rest assured that scheduling is not usually the awesome task it may seem at the outset. Scheduling, however, is a complex process, and compromises must be made. No one will ever develop the perfect schedule, but you can come close.

The purpose of scheduling is to determine the most effective and efficient use of each instructional day to provide the maximum amount of instruction to each student. Scheduling in traditional programs is an easier task to accomplish than scheduling for programs that involve a number of critical activities and skills, a variety of natural environments, and many people who may assist in training efforts. Traditional programs typically schedule all students in small or large groups within set time blocks allotted to each curriculum area (language, music, self-help, gross motor, and so on). Most or all instruction occurs in the classroom, and the teacher usually schedules for only one additional staff member—the classroom assistant.

Scheduling and staffing for community-based programming is more difficult, but in many ways it is also more efficient. Scheduling in the ICSM usually ensures that each student's instructional programs are implemented in relevant training environments, at natural times of occurrence, with compatible instructional groups, and with groups of a size that can be easily assimilated into the natural environment.

In scheduling any community-based activity you must comply with the school district's policy on off-campus instruction. The State of California has no uniform practice on community-based instruction, and the classroom teacher must solicit full knowledge and sanction by the district administration, school board, and county counsel for such instruction well before scheduling and implementing the program. Is this easy to do? Not always. But it is absolutely necessary. The numerous legal and logistical issues surrounding community-based instruction are discussed in depth in Holowach's *Implementing Community-Based Instruction: A Resource Guide for the Individualized Critical Skills Model*, 1984. Compliance with district and county policy is mandatory at all levels of developing and implementing community-based instruction.

Important Factors

Working within your district's stated policy regarding community-based instruction, you will need to consider many factors when planning a schedule:

1. Policy on supervision of students.
2. Individual students' needs.
3. Number of students.
4. Human resources available.
5. Training skill level of human resources.
6. Compatible grouping of students.
7. Compatible environments in which various critical activities and skills can be taught.
8. The natural ratio of handicapped to nonhandicapped individuals in training environments.
9. Transportation possibilities
10. Site Schedule—the amount of time which must be spent at school, either for individual students, small groups of students, or the entire class (examples include physical therapy, occupational therapy, adaptive physical education and integration activities.
11. Transition time from one activity to another.
12. Natural times of occurrence for targeted activities.

13. Length of activities

14. Appropriate coverage of all students, whether participating in on-, or off-campus activities.

Priority is always given first to instructional programs in natural or instructional environments. After these have been determined, consideration is given to instruction in the classroom.

Scheduling for the Student, Not for the Staff

As instruction takes place more and more in natural environments, staff preferences and whims have less effect on scheduling. How often have you heard teachers say they schedule all of "the hard things" (whatever the "hard things" are) before lunch time—as if learning stops after 11:30-12:00!

In more traditional programs, the "lighter" subjects (music, arts and crafts, physical education, free time, and even naps) were usually scheduled after lunch. The calmer and more casual afternoon atmosphere in these classrooms signaled students and observers that instruction for the day was done! Well, instruction may have stopped, but learning didn't. And what those students were learning was to receive passively whatever the leisure activity was—a cot or mat and dimmed lights for one to two hours of "quiet time" until the buses rolled in.

In the ICSM instructional process, how you schedule the instructional day (or week or month) should depend on when targeted activities naturally occur more than any other consideration. Within the constraints of a natural schedule, there is still much flexibility.

THE SEVEN-STEP SCHEDULING PROCESS

To help you develop your instructional schedule, the ICSM suggests a seven-step process that you may follow in a "cookbook" fashion. Again, these steps are only suggestions, and you will most certainly want to draw from your past experiences and present practices when scheduling for your staff and students.

There are seven steps involved in scheduling and staffing for instruction in natural environments.

Step 1: Group Your Students by IEP Objectives and Training Environments

Locate all the IEPs and completed ICSM Instruction Plan Sheets for each student. The coversheet should provide all the information you will need to tentatively group students by training or instructional environments. For each student note the instructional environments and the critical activity. The worksheet entitled "Grouping Students by Training Environments" (Figure 11.1) may be helpful in compiling relevant information.

In the first box of the worksheet, write the first environment, the student's name, the critical activity, and (if applicable) natural time of occurrence of the activity. For the same student, note the second training environment and the second activity; put this information in the second box. Continue putting new environments and activities in different boxes until all instructional programs have been noted for the first student. Continue the same procedure for each student, until all community programming environments and activities have been listed for all students in your class.

After listing all information, look at the groups of students in each box and determine the following:

- **Are these students compatible for instruction?** If it is not possible to instruct the group of students listed under one activity together, some alternatives in your scheduling will have to take place. Students may not be considered compatible for a number of reasons: the amount of physical prompting required, mobility, behaviors, the amount of intervention required, and so on.

- **Are the activities compatible?** Can buying items, walking in crowds, and riding in elevators be taught at the shopping mall? If not, different scheduling options will need to be considered.

- **Are there too many students for one training activity?** If the number of students is too large to be comfortably managed or to be appropriate for the activity, you will need to divide the group into two smaller training groups.

As you teach more often in natural environments, be sensitive to the impact the group will have on the environment and vice-versa. Instruction in natural environments is clearly different from field trips. The size of the group should appropriately represent an

FIGURE 11.1
WORKSHEET 23

Grouping Students by Training Environments

Env. Shopping Mall Student / Activity / Natural Tm. Lori, buying items, NA John, walking in crowds, NA Beth, riding elevators, NA	Env. Fast Food Rest. Student / Activity / Natural Tm. Lori, ordering/eating lunch John, eating, lunch time Dick, ordering/bathroom, Lunchtime Joan, eating, lunch time	Env. Video Arcade Student / Activity / Natural Tm. John, playing games, NA Joan, buying coke, NA Sally, playing games, NA Bob, playing game/getting change, NA	Env. Holiday Inn (Work Site) Student / Activity / Natural Tm. Lori, cleaning rooms, afternoon Beth, cleaning rooms, afternoon Joe, washing clothes, afternoon Sally, washing clothes
Env. Hospital (work site) Student / Activity / Natural Tm. John, boxing, morning Dick, sorting/boxing, morning Joan, laundry, morning Bob, laundry, morning Greg, cleaning rooms, morning	Env. Movie Theater Student / Activity / Natural Tm. Lori, transportation, buying tickets, afternoons Dick, sitting, afternoons Bob, buying snack, sitting, afternoon Joe, sitting, afternoon	Env. Grocery Stores Student / Activity / Natural Tm. Lori, buying, NA Mary, buying, NA Greg, selecting / buying, NA Beth, selecting items, NA	Env. Family Restaurants Student / Activity / Natural Tm. Sally, selecting/ordering, lunch afternoon break Joe, ordering/eating, lunch Mary, ordering/eating, lunch
Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.

intensive instructional situation. Optimally, the other individuals in the environment will not be distracted by, inconvenienced by, or over-compensate for the students with severe handicaps in the group. Thus the environment will remain a natural situation for learning.

When Sara took her class bowling, the staff at the alley became overly helpful. They told the students they didn't need to pay, and actually memorized the students' sizes so that the students didn't need to request shoes. The natural environment became unnatural and was not a true learning experience since the long-range goal was for each student to be able to bowl independently on a weekend or vacation at a nearby bowling alley. The 16 students bowled on four neighboring lanes and often attracted curious onlookers. By reducing the size of the group and requesting to pay normal rates and ask for shoes, the experience became a natural learning situation again.

Step 2: Determine Fixed and Flex Time Blocks

Review the site schedule to determine events that occur at specific times. Lunch, arrival, and dismissal times are generally inflexible and must be considered early in the scheduling process. When scheduling on an integrated site, attempt to make the handicapped student's schedule coincide with his nonhandicapped peer's schedule whenever possible. To do this, schedule times in which all students have opportunities for interaction.

Ask yourself, when do nonhandicapped students:

- come to school?
- pass between classes? (using bathrooms, drinking fountains)
- go to recess?
- eat lunch (breakfast)?
- hang out in the yard/school grounds?
- use the snack area?
- wait for the bus?
- leave school?
- attend assemblies, rallies?

Determine the time blocks when individual students or groups of students *must* be at school or in the classroom. These are *fixed times*. Note these times on the "Fixed and Flex Time Blocks" worksheet (Figure 11.2). Be careful: Sometimes you may feel that certain school or classroom activities are fixed when, in actuality, they are not. For example, you may be so used to a recess after lunch for younger students, you think it is a fixed time period. Actually, any number of activities could be scheduled for that time.

The time blocks that are not fixed (hence "flex time") are those times that are available to some or all of the students for instructional programming in natural environments. In Figure 11.2 note that only 8:45-9:15 and 2:30-2:45 are fixed. Speech for three students (Tuesday and Thursday) and lunch are at specified times, but that does not mean that students must engage in these activities only at school or in the classroom.

When determining which activities will take place during fixed and flex time periods, consider the natural time of occurrence of the activity and any logistical issues that may effect your decision. If one student's targeted critical activity is dressing, then schedule instruction to take place when the student is changing from school clothes to P.E. clothes (just before swimming at the YMCA), and when the student is taken to the bathroom on an hourly basis for toilet training. It is far more practical for you (and more relevant to the student) to teach dressing at these natural times of occurrence than as an isolated activity at 10 A.M. in a sectioned-off corner of the classroom.

You may also choose to schedule activities together that occur near each other. Transportation is often a difficult issue when implementing community-based instruction. If students can be scheduled to participate in activities that occur in the same environment or in environments that are close by, many transportation problems can be eliminated. Make sure that the groups of student participating in community activities are not too large. You want them to be assimilated in the training site, not stand out. Be conscious of appropriate handicapped-to-nonhandicapped ratios at all training environments.

Step 3: Determine Resources for Community Instruction

With common staffing patterns, it can be difficult to provide good instruction in a variety of settings unless we look beyond only those staff assigned to the special education class. Becoming a community based program means being part of the community and utilizing all the resources available there.

FIGURE 11.2
WORKSHEET 24

Fixed and Flex Time Blocks

TIME BLOCKS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:45-9:15	Student's Arrival Time				
9:15-9:45		Beth, John + Mary Speech		Beth, John + Mary Speech	Last Friday each month - all school assembly and film
11:30-12:15	Lunch Time at school				
1:00-1:30	Philip + Shareen Music -- 2nd grade				
1:30-2:00		Adaptive P.E		Adaptive P.E.	
2:30-2:45	Busses Arrive				

Brainstorm possible sources for all the human resources you could use in community instruction during flex-time blocks. Even list people who may not be viable possibilities at this time. Your list may include other students, teachers from your school or other schools, instructional assistants (from your classroom or other rooms), workers in the school (clerical, custodial, and so on), people in natural training environments, parents, volunteers, university students, and others.

Determine the time the person is available, the level of instructional readiness (ready, somewhat ready, not ready for community training), and an action plan of what you need to do to get the person fully involved. Use this information when drafting your master schedule.

There is a wealth of human resources available to you. Be creative in exploring unconventional staffing options. You may feel the extra time it takes involving and training others to assist you in implementing instructional programs is taking time away from your students. In the long run, however, great benefits to you and the students will be realized. *One of your first priorities should be involving and training others to assist you.*

Step 4: Develop a Tentative "Master Schedule"

The purpose of Step 4 is to help you integrate all the components of the ICSM into a workable, efficient schedule. Using the two previous worksheets, determine the time, the environment, the trainers, and the student and activity for various days of the week and write them on the Master Schedule (Figure 11.3). You may use the Master Schedule Worksheet for one to five days, weekends, or for home programs (for example, M,W,F; T,Th; M; W; Th; F,S,S; or any other combination).

No schedule is perfect—but it is important to make the best approximation to your ideal. Be prepared to make changes. Prioritize student needs. Make sure that schedules are made to fit student needs, not student needs made to fit schedules.

Step 5: Develop an "Individual Schedule" for Each Student

Based on the Master Schedule, you may wish to record each student's schedule on an Individual Schedule Worksheet (Figure 11.4). Make sure that all the time periods are covered for each student. Also check that all critical activities are covered as prioritized earlier in the ICSM process.

Individual schedules are handy references when talking with parents, DIS staff, and volunteers. Frequently, parents and administrators will request copies so that they know what a particular student's week looks like.

Step 6: Implement the Schedule

The next step is to simply try the schedule you developed. Implement the schedule for at least a two-week period. Decide what modifications are needed only after everyone has had enough time to adjust. Be sensitive to students' and staff members' reactions. Do not expect everything to run according to schedule at all times, and make notes of areas that need changing. The best rule of thumb is to move slowly and not try too much too soon. A lot of emotion, time, and energy goes into developing a good workable schedule. It is better to recognize that there will most certainly need to be modifications, and to expect them, rather than to be disappointed that your schedule does not work smoothly the first time out. The more experience you have, the easier the process becomes.

Step 7: Monitor Program Implementation

Since you may be managing a number of trainers implementing various instructional programs, it is helpful to develop a system to monitor the implementation of the programs. The Individual Instructional Management Worksheet is one type of simple checklist system that may assist you in monitoring each student's instructional day (Figure 11.5).

Place the worksheet up in the classroom (or in an easily accessible place) so that various trainers may easily note if the program was implemented or not. Use these worksheets at staff meetings to provide feedback and to improve the effectiveness and efficiency of trainers and schedule revisions. This is only a sample worksheet. You could devise any variation that would help you keep tabs on what students and trainers are doing throughout the day.

FIGURE 11.3
WORKSHEET 25

Master Schedule

Days of week: Monday & Wednesday

Time Environment Trainers Student/Activity				
9:30 - 11:30 HOSPITAL (teacher, Lisa, James) -John/boxing -Dick/sorting -Joan/laundry -Bob/laundry -Greg/cleaning	9:30 - 10:00 CLASSROOM (aide & volunteer) -Lori/grooming -Sally/grooming -Beth/grooming -Mary/leisure-Joe/leisure 10:00 - 11:00 SHOPPING MALL (aide, Linda) -Lori/buying -Sally/arcade -Beth/elevators 11:00 - 12:30 CLASSROOM aide & volunteer -Lori/leisure -Sally/leisure -Beth/leisure -Mary/grooming -Joe/grooming	10:00 - 11:00 ROOM 5 (teacher's aide & volunteer) -Joe/restaurants	10:00 - 11:00 ROOM 10 (Bill & Aide) -Mary/stores	
11:30 - 12:30 FAST FOODS RESTAURANT (aide & volunteer) -Lori/eating -Joan/eating -Dick/ordering -John/eating	11:30 - 12:30 LUNCH ROOM (teacher) -Beth/eating -Sally/eating -Joe/eating -Greg/eating -Mary/eating -Bob/eating			
12:30 - 12-45 aide break	12:45 - 1:00 Teacher Break	12:30 - 1:00 All Students Socialization/ Group & Individual Leisure		
1:00 - 2:30 HOTEL (teacher, Dan) -Lori/cleaning -Beth/cleaning -Joe/laundry -Sally/laundry	1:00 - 2:00 VIDEO ARCADE (aide & H. S. student) -John/buying -Bob/playing	1:00 - 2:00 ROOM 10 (Bill) -Greg/store -Mary/store -Dick/leisure		

FIGURE 11.4
WORKSHEET 26

Individual Schedule

Student: Lori

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
9:30 - 10:00	Grooming	Grooming	Grooming	Grooming	Grooming		
10:00 - 11:00	Shopping	Shopping	Shopping	Grocery	Movies		
11:00 - 11:30	Leisure	Leisure	Shopping	Leisure	Meal Prep. Leisure		
11:30 - 12:30	Fast Food	Lunch-School	Fast Food	Lunch-School	Fast Food		
12:30 - 2:30	Hotel (worksite)	Hotel (worksite)	Hotel	Hotel	Hotel		

FIGURE 11.5
WORKSHEET 27

Individual Instructional Management Worksheet

Student: Lore

KEY:
√ = Actvity
no = No Opportunity
A = Absent
M = Maintenance

CRITICAL ACTIVITY/SKILL

DATE	grooming/hair brushing	grooming/make-up	dressing/front/back	shopping/buying	leisure/independent	leisure/group	fast food-ordering	work-cleaning	movies	food prep/simple meals	COMMENTS
10/5	/	/	/	/	/	NO	/	/	NO	NO	NO = not scheduled today
10/6	/	/	/	/	/	/	NO	/	NO	NO	NO = not scheduled today
10/7	/	/	/	/	/	NO	NO	/	NO	NO	fast food; transportation problem
10/8	/	/	/	/	/	/	NO	/	NO	NO	NO = not scheduled
10/9	A	A	A	/	/	NO	/	/	/	NO	A = late for school; bus problems
10/12	/	/	/	/	/	NO	/	/	NO	NO	NO = not scheduled
10/13	/	/	/	/	/	/	NO	/	NO	NO	NO = not scheduled

SUMMARY

Scheduling for a community-based program can be a complicated process. You want to ensure that each student's instructional programs are implemented in training environments that represent a wide range of relevant stimulus characteristics, at natural times of occurrence, and in instructional groups that can be easily assimilated to the natural environment(s).

The first consideration in implementing community-based instruction is compliance with your district's policy regarding off-campus activities. Because of the obvious liability issues, it is imperative that you receive the sanction of your district administration, school board, and county counsel *prior* to any implementation.

Scheduling and staffing for instruction in natural environments is a seven-step process:

1. Group your students by IEP objectives and training environments.
2. Determine when the individual or groups of students must be at school or in the classroom (fixed time) and when the individual or groups of students may be instructed in natural environments (flex time).
3. Determine and train, if necessary, the people (human resources) who may be available during flex time periods.
4. Develop a tentative "Master Schedule" for each day of the week by grouping students in relation to training environments, time of day (flex time), and trainer(s).
5. Develop an "Individual Schedule" for each student to keep track of where each student is during the instructional day.
6. Try out the schedule and continue to make necessary modifications so that the schedule works for the students, you, and the other trainers.
7. Monitor the program implementation for each student to confirm programs are being implemented as planned and that each student's schedule maximizes instructional time.

You should be continually evaluating your program. Question all trainers as to the efficiency and the effectiveness of the schedule. When a schedule is clearly not working, don't hang on to it solely because you have invested time and energy into it. On the other hand, don't make hasty decisions before having an opportunity to work any "bugs" out. Through systematic evaluation and modification, you will develop a schedule that is satisfactory for students and trainers. As you gain experience, scheduling becomes easier.

In the next chapter we will see how instructional programs, once implemented, can be evaluated and modified to ensure mastery of the skill or activity in the natural environment.

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CHAPTER 12
EVALUATING AND MODIFYING INSTRUCTIONAL PROGRAMS

The criterion of the least dangerous assumption offers educators some guidelines for data evaluation....Generally, the criterion of the least dangerous assumption holds that there is less danger to students if teachers assume instructional failure is due to instructional inadequacy rather than to student deficits.

Donnellan (1976, p. 147)

CHAPTER 12

EVALUATING AND MODIFYING INSTRUCTIONAL PROGRAMS

How do you know if all the energy you have expended in planning and implementing instructional programs is paying off? Is Kim learning to clear the table at home? How much time should it take Karl to brush his teeth? Is it still "too hard" for James to wash his hair? To determine if an instructional plan is effective (that is if the student is learning), you must frequently evaluate student performance. Objective evaluations will show whether or not your student is progressing satisfactorily and if you will need to modify your instruction. Objective evaluations also provide an opportunity to maintain parent contact regarding student progress, possible modification strategies, and so on.

HOW TO EVALUATE INSTRUCTIONAL PROGRAMS

In Chapter 10 we saw how to establish modification criteria for each instructional program that is developed. Performance below the modification criteria range indicates that learning is not taking place at an acceptable rate. You should base modification criteria on logic, common sense, and an evaluation of the standards allowed by the natural environment.

Once you set the modification criteria range, then you can evaluate student performance data. Three basic rules can be used to evaluate instructional programs:

1. If data points are within the criterion range, the program does not need major modification. The student is progressing at the desired rate.

2. If data points fall above the criterion range, the student is demonstrating mastery of that particular step in the instructional process, and is ready for the next level of independence in the instructional program or for maintenance trails in the natural environment.

3. If data points fall below the criterion range, the student is not progressing at the desired rate and the program is in need of modification.

Let's say that Sunny's teacher has set 95 percent accuracy or better for five consecutive days as the success criterion for Sunny lifting her spoon to her mouth and feeding herself. He has set 70 percent or below for two consecutive days as the fail criterion. An long as Sunny's performance stays within that range, her teacher is fairly confident that she is learning at an acceptable rate. Figure 12.1, which shows Sunny's performance data, indicates she is progressing at the desired rate. Note that her actual performance went above and below the range set by her teacher, but did not go out of the range for more than one instructional day at a time.

There are a few words of caution about students whose performance stays steadfastly within the acceptable range for weeks, but never goes above the success criterion. If there is not a general trend of progress, but rather a long plateau, you should treat that information as if the student had met fail criteria. The instructional program will have to be modified to help the student master the targeted skill.

Figure 12.2 shows a performance graph in which Sunny exhibits a plateau in her learning: a flat and predictable performance. When a plateau occurs, you will need to modify either the consequences (by providing a more powerful reinforcer) or the stimulus (by providing more powerful cues or prompts) to help that student move toward mastery, rather than maintaining a status quo performance.

Figure 12.3 presents another of Sunny's performance graphs. Where learning is not taking place at the desired rate. While on some days her performance is within the acceptable range, on two consecutive days she fails to perform the skill at an acceptable level. The instructional program will need to be modified to help her reach the desired goal.

HOW TO MODIFY INSTRUCTIONAL PROGRAMS

Instructional programs need to be modified either when the student has met criterion under the specified instructional conditions or when the program has not been effective and the student is not progressing at the desired rate.

When your student has met the instructional criterion then your program has been successful. You

FIGURE 12.1

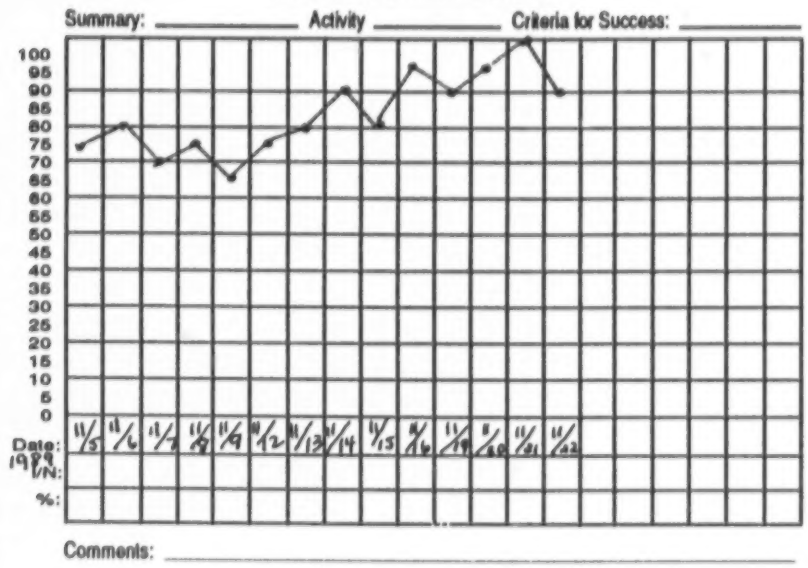


FIGURE 12.2

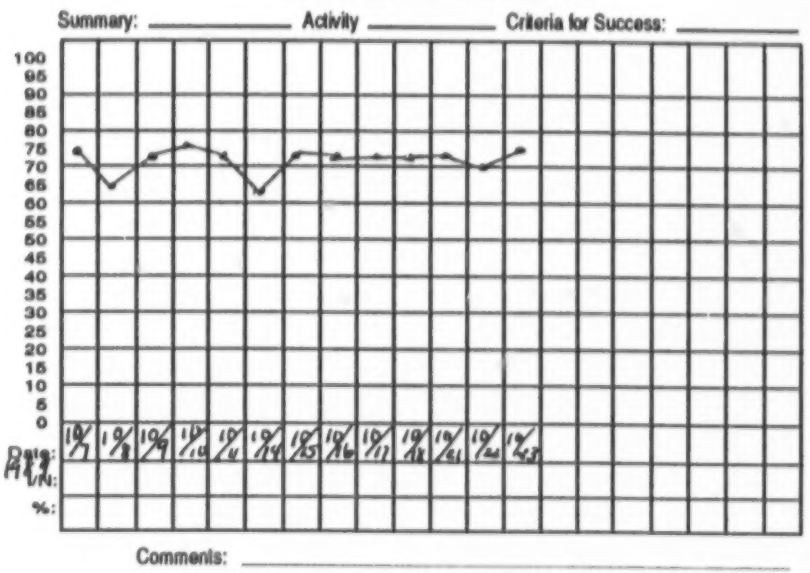
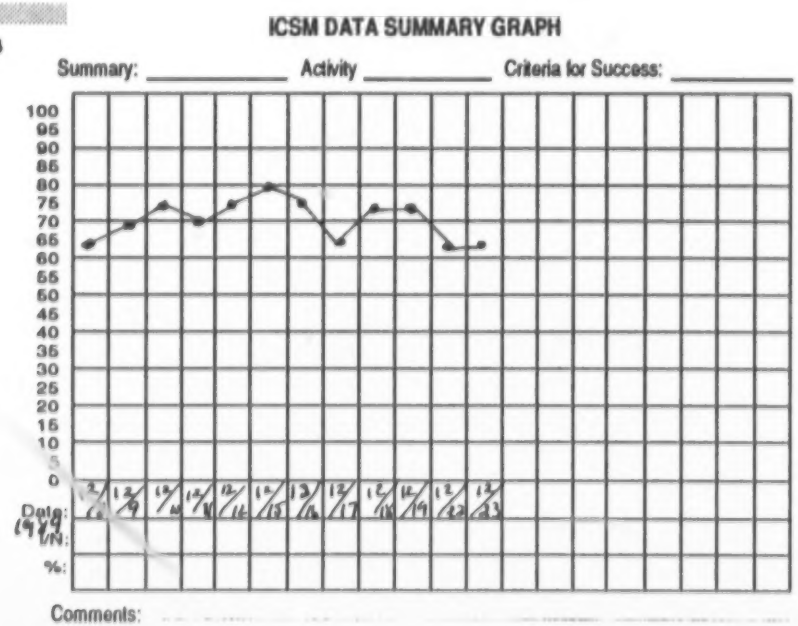


FIGURE 12.3



will want to continue to modify your program until the desired response is elicited by the natural stimulus. There are many ways to do this.

When the Criterion Has Been Met

1. Fade instructional prompt to a less intrusive level or to the natural stimulus. You can determine the next appropriate level of prompt by conducting a training probe. Execute several trials at various prompt levels to determine the least intrusive level of prompt that will occasion the response.

2. Fade the reinforcer to a less intrusive level or to the natural consequence. Determine the next appropriate level of reinforcer by undertaking a training probe. Execute several trials using various levels of reinforcer to determine the least intrusive reinforcer that will maintain the response.

3. Cut down the rate at which the reinforcer is being given. Move from continuous to intermittent schedules (from every correct response receiving the reward, to every other, every third, and so on).

4. Undertake "generalization probes" in untrained natural environments to ensure that the student is able to perform the activity in similar but not identical environments.

When the Criterion Has Not Been Met

When the student's learning curve falls below the established criteria, the present set of contingencies being used are not sufficient enough to maintain the response over time. There are a number of variable that you can consider when deciding exactly how you will modify the instructional program.

1. Be sure that all trainers are consistently implementing the instructional program. If cues, corrections, or reinforcers are not presented the same way to the student (at the initial stages of learning) for each trial, then the student's response could become inconsistent and there will not be progress at the predicted rate.

2. Provide for adequate instruction time to allow the student sufficient practices to maintain the skills once learned. Receiving instruction once a week or less on a new skill is probably not enough time to master the new step(s).

3. If you are using the correction procedure, use the most intrusive level of prompt recorded, and change to the cue procedure. Provide the prompt *before* the response occurs, not *after*.

4. If you are using the cue procedure, use a prompt slightly *more* intrusive than the one presently being used, but slightly *less* intrusive than the one previously abandoned. For example, Teresa was making adequate progress learning to bring her spoon from the plate to her mouth with a full physical prompt, so you changed to a light physical prompt of tapping her hand as the next prompting level. If, at the second step, Teresa stopped making adequate progress, it may be because you faded the prompt too quickly. You would need to backtrack and implement a prompt somewhere in between the tapping and full physical prompts (such as lifting Teresa's hand and spoon within four inches of her mouth, and releasing it) to elicit the desired response.

5. If the prompt and correction modifications apparently fail to make the program more effective, examine the instructional consequences being delivered. It may be that the reinforcer you selected is not motivating enough, or not strong enough, to maintain the desired response. Undertake a training probe to determine which reinforcers could maintain the desired skill level.

6. If you have modified instructional contingencies but the student still does not progress adequately, perhaps too much is being required of the student too soon. Consider whether or not the response or skill can be broken down into smaller components. If Norman is learning to ambulate in his wheelchair from the cafeteria line to the lunch table (a distance of about 30 feet), then possibly the expectation could be initially reduced to half or a third of the distance (10 to 15 feet) until he mastered that distance, and then increase to the next 10 or 15 feet.

7. If you are teaching the total activity, you can see if there is one component that repeatedly requires more corrections than others. For example, say that when making a peanut butter sandwich, Jason consistently requires level 1 and 2 corrections on opening the jar. If so, perhaps that component needs to be broken down further, given extra practice through other activities or in isolated trials, or an adaptation developed.

EVALUATING AND MODIFYING ADAPTATIONS

While evaluating student progress in the instructional program, you should also analyze the effectiveness of any adaptation in use. It is appropriate to ask yourself the same question you did when you were selecting an adaptation (review Chapter 6). Namely you will want to know:

- Is the adaptation effective (does the student perform the desired response)?
- Can the adaptation be used in natural environments?
- Does the adaptation cause undue attention to the student?
- Can the adaptation be modified to
    1. allow the student to participate more fully (perform more of the activity than he or she is presently doing)?
    2. perform the activity more efficiently (quicker and better)?
    3. perform the activity under natural contingencies?
    4. perform more than one activity?

If you determine the adaptation should be modified, proceed as when modifying instructional programs. Systematically change the adaptation based on your best educational judgement. Implement the adaptation and record its effectiveness. Evaluate the adaptation again and continue to modify if necessary. This procedure applies to activity as well as physical adaptations.

IMPLEMENTING PROGRAM CHANGE

The old adage "try, try again" really holds true when modifying instructional programs. You don't always succeed on the first or even the second program modification, but with the systematic application of learning principles and with a consistent teaching style, you will see your students progress. There are some general guidelines for implementing program change:

Guidelines for Program Modification

- Modify only one aspect of an instructional program at a time. If you alter the cue, expected response, instructional consequence, and adaptation all at once, it will be difficult to determine which modification will be responsible for the change, if any, in progress. Move slowly, so that you may systematically add or eliminate instructional assists. In this way you will learn what does and does not work for a particular student, and this information will greatly help you with future planning.
- Inform your staff of any changes made. Sometimes this task may even require role playing to illustrate the new cues, corrections, and so on.
- Monitor staff performance to make sure changes are being implemented properly.
- Allow for an adequate amount of time to evaluate the change. Establish a new criteria every time you make a major modification (break down a step, move from correction to cue, and so on), and apply that criteria for change. Do not decide in one trial or one day if the modification is effective.

How to Denote Program Modification

Once you have decided on the change(s) you want to make, you will want to indicate these changes on the Instructional Plan Sheet and the Data Summary Graph. On the Instruction Plan Sheet, cross out all changed instructional cues, corrections, consequences, or responses, and write the changes in the same boxes, above the crossed out lines. Date your modifications. On the Data Summary Graph, you could draw a " | " on the date of modification; do not connect the last data point with the new data point that represents the modified program.

SUMMARY

To determine whether an instructional plan is effective, you need to evaluate the student's performance frequently. This is accomplished by first setting criterion levels, by which you can determine if the student is progressing at a satisfactory rate, and then graphing the criterion levels and the student performance data. If a performance falls above or below the

range of acceptable performance for a specific number of days, you need to change the instructional program.

Program modifications are to be made systematically. Only one or two components of the instructional program should be altered at a time, and each modification should be evaluated as to its effectiveness before other changes are made. Programs should be modified until the student performs the skill or activity under natural contingencies.

In the next chapter we look at how to evaluate overall student progress.

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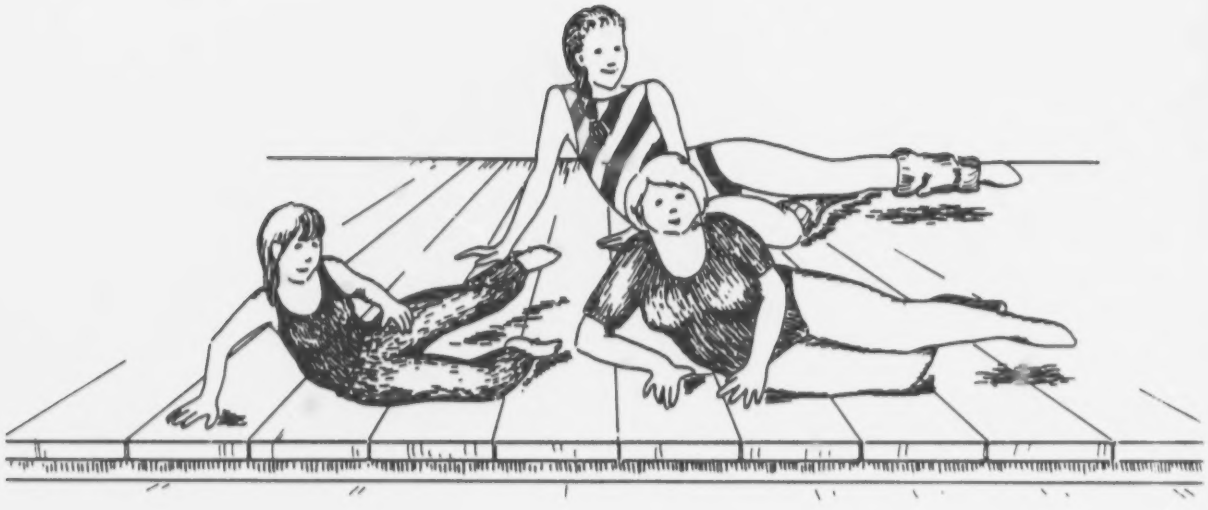
CHAPTER 13
EVALUATING OVERALL STUDENT PROGRESS



CHAPTER 13
EVALUATING OVERALL STUDENT PROGRESS

Sometimes as teachers we get so caught up in individual student performance that we forget to look at the student as a whole.

Principal: *How's Aldrin doing?*

Teacher: *Aldrin is doing really well at his job site! The supervisor who oversees his work feels he is on par with her other employees.*

Principal: *I'm really glad to hear that. His aunt spoke with me at our open house and mentioned that she was looking forward to this summer when he would be staying with her because they moved to a new mobile home park with a very large swimming pool.*

Teacher: *Oh...that's right. His mother did want us to work on improving his swimming skills. We got so carried away with his job training that we put that on the back burner.*

Sound familiar? Aldrin's teacher is not intentionally forgetful. She does not callously refuse to instruct him in targeted activities. She has, however, become so enthusiastic about progress he is making in one area that she has temporarily forgotten to provide instruction in *all* areas.

Here's another scenario:

Teacher #1: *Hi. You're Marissa's new teacher? I had her five years ago.*

Teacher #2: *Oh, really, what was she like then?*

Teacher #1: *I can't remember much, except that we seemed to spend a lot of time working on teaching her to brush her teeth.*

Teacher #2: *Oh, really . . . we're still spending a lot of time on that . . .*

Another familiar scene? Probably! Again, Marissa's present teacher is not specifically neglectful of his teaching duties. He is teaching her an activity identified as critical by her parents and doing so in relevant contexts. What he failed to discover, however, was Marissa's instructional history regarding this skill.

Both of these situations demonstrate the need to carefully and systematically evaluate overall student progress. Phase 9 (the final phase) of the ICSM deals with critically reviewing student performance in all program areas. We will look at two methods for such a review.

IEP FOLLOW-UPS

One efficient way to evaluate student performance is to regularly plan for scheduled IEP follow-ups. IEP follow-ups will help you to:

1. Determine if your student is participating in the critical activity in the natural environments as determined by his or her parents.
2. Determine the number of times your student is allowed to participate in the critical activity. (Is the number of participations increasing or decreasing as the student gains more skills?)
3. Determine what type of assistance is being provided to your student.
4. Assist in resolving any concerns or problems voiced by your student's parents.
6. Determine if other critical activities or skills have become important.
7. Further communicate and cooperate with your student's parents.

The follow-up procedure need not be lengthy or cumbersome. To assist you in this process, you may choose to use an IEP Follow-Up Worksheet (Figure 13.1). The instructions for completing the worksheet are described below.

Instructions For Completing IEP Follow-Up Worksheet

1. Complete the information at top of the worksheet (names and telephone numbers).
2. Note the curriculum domain (domestic, voca-

FIGURE 13.1
WORKSHEET 28

IEP Follow-Up

Student: Jesse R.

Parents / Providers: Mr. & Mrs. R Telephone: _____

Significant Other(s): — Telephone: _____

Curriculum Domain: Domestic

Critical Activity	Date	Has student performed activity?	How many times?	What sort of assistance was provided?	Do you need help?	Comments/Problems/Other critical activities in this domain?
Toilet Training - Keeping pants dry	1/14/89	Yes	4/5 days per week	placed on toilet every 2 hours	NO	occasionally forgets to put Jesse on toilet, still diapers at night
Dressing - puts shirt on	1/14/89	Yes	daily	Mom puts shirt over head, Jesse pulls down	NO	talked to Mom about letting Jesse do more herself
Breakfast - pouring cereal & milk in bowl	1/14/89	NO	—	"easier for me to do it" - (doesn't like the mess)	YES	Mom felt if we taught him at school to do this - she would at home

Adapted from Wilcox, B. & Bellamy, T. *Design of high school programs for serverely handicapped students*, (1982). Paul H. Brookes Publishing Co. Reprinted with permissin.

tional, recreational, or general community). Use a separate worksheet for each curriculum domain.

3. It is suggested that the IEP follow-up be conducted at least monthly. More information regarding instructional efforts may be obtained if more frequent contacts are made.

4. Note the "critical activity" in the appropriate column. If there is more than one critical activity in the curriculum domain, leave some space to gather information at other times (Option: use a different worksheet for each targeted critical activity).

5. Note the "date" of the telephone contact in the appropriate column. If more than one person is being contacted (care providers and additional significant others), note their names in this column also.

6. Ask the person being contacted if the student has engaged in the activity. Record a Yes or No. If the answer is "No," you may want to determine if and why this is still a "critical activity."

7. If the answer to item 6 is "Yes," ask how many times the student engaged in the activity since your last contact.

8. Determine the type of assistance provided to the student. This should be reflective of your instructional efforts or should be reflected in your instructional efforts. This information will assist you and the person contacted in determining the efficacy of instruction.

9. Ask the person contacted if they need any type of assistance. Record a "Yes" or "No."

10. Use the last column for comments and problems as noted by the person contacted. Always ask if there are other critical activities which have come up in this curriculum domain since your last conversation.

CRITICAL ACTIVITIES RECORD

Another way to evaluate overall student progress is to keep a brief accounting of the critical activities your student has received instruction in. This record need only be updated once a year. (The IEP annual review would be a logical time). The completed record gives you and the subsequent teachers an idea of what activities and skills were taught, what adaptations were used, the student's performance level, and the teacher-student training ratio. Figure 13.2 shows an example of a completed Critical Activities Record.

One record is completed and maintained for each domain. As the record is updated yearly, pages are added as needed. The result is a chronology that follows the student throughout all of his or her school experience. Much of the same information can be gleaned from reviewing past IEPs; the Critical Activity Record simply summarizes and compiles that information in one easy-to-use format.

This form also makes it easy to evaluate a student's overall progress. You will be able to tell at a glance how long a student has been working on a particular activity, and how far the student has advanced. When completing the form be sure to leave enough space between activities and skills to allow for new information to be added each year.

OVERALL PROGRAM EVALUATION

The Overall Program Evaluation allows you to critique all aspects of your instructional program. This evaluation goes beyond just looking at individual student progress. You should also be looking for certain general trends in your instructional program: The services you provide should be moving in the direction of increased parent involvement, increased participation in natural environments, and increased student progress.

The following list of questions should be reviewed at least every two months. Ask yourself (or put in writing) what progress you have seen in your total program since the last time you evaluated yourself (or the beginning of the year, and so on). If your answers are "Yes" more often than "No"—good for you! If your answers are frequently "No," reflect on why that particular area is not progressing.

Questions to Ask in the Overall Program Evaluation

1. **Are students participating more in present natural environments in domestic, vocational, recreation/leisure, and community domains?** The ultimate goal of the ICSM is to allow individuals to participate in critical activities in natural

FIGURE 13.2
WORKSHEET 29

Critical Activities Record

Students: Dominique

Domain: Community

ACTIVITY	SKILLS	ADAPTATIONS	PERFORMANCE LEVEL	TRAINING RATIOS	DATE(S)	COMMENTS
shopping	Stay with basket	--	full prompt light prompt	1:1 1:1	Jan. '90 Mar. '90	tries to run away from basket and grab food -
	Walk down aisle	--	direct verbal independent	1:1 1:3	Jan. '90 Jan. '91	holding onto cart helps
	Select item	Picture of desired item - match	gesture - point to picture	1:3	Jan. '90	presently selects milk, bread, eggs, ice cream (as a reward)
walking to store	Stay on sidewalk		light prompt independent	1:1 1:3	Jan. '90 Jan. '91	
	Stop at intersection		full prompt ind. verbal	1:1 1:3	Jan. '90 Jan. '91	

environments under natural stimulus and consequent events in all four domains. To this end, instruction in natural environments should be maximized, and instruction in artificial environments minimized.

2. **Are students participating more in future environments in domestic, vocational, recreation/leisure, and community domains?** Students should not only be receiving instruction to help them participate in critical activities now. They should also be preparing for the future by learning the skills that will be necessary later (within three years) in life.

3. **Are students participating at a higher level in critical activities in natural environments?** Participation in activities in natural environments is not an end in itself. Our goal should be to continually increase independence, facilitate fuller participation, and improve student performance in present and future environments.

4. **Are basic skills being instructed as proposed in infused objectives?** Basic skills occur across activities and domains. They should be taught in relevant contexts as components of targeted critical skills.

5. **Is the focus of instruction in basic skills decreasing as students get older?** Students should be receiving the type of instruction that will allow for greater participation in critical activities. At younger ages this may initially include teaching basic skills in critical contexts. As the student gets older, however, the emphasis should be more heavily placed on developing adaptations to facilitate participation.

6. **Is rapport with parents increasing?**
As you allow parents to become more involved with the process, lines of communication are opened and respect should be developing. This rapport is strengthened by the parent interview and IEP follow-up procedures.

In short, your overall instructional program should not be static. Your students, your instruction, and your skills as a coordinator/facilitator should be improving over time. By periodically checking each program element, you will be forced to troubleshoot problem areas, and you can congratulate yourself on areas that are succeeding.

SUMMARY

Evaluation of overall student progress can occur in several ways. First, the student's IEP goals and objectives can be regularly reviewed in a structured follow-up procedure. In the procedure, the frequency of student participation in natural environments and the student's progress in acquiring targeted critical skills should be discussed with parents or care providers at least once a month. At that time any modifications, additions, or deletions to the instructional program can be made.

Second, an ongoing record of the critical activities taught should be kept for each student. The record should be filled out yearly and should summarize the activity, skills, and student performance level. This record is intended to accompany the student throughout his or her school career and will serve as a concise chronology of the activities and skills that were taught.

Overall program evaluation should also be conducted to review general trends in student progress, parent involvement, and program components. The overall instructional program should reflect continual growth in the direction of facilitating greater participation in critical activities in natural present and future environments.

In Section III, the final chapter of this manual discusses strategies for putting all the components of the ICSM together, and for implementing a critical skills instructional model in your own teaching situation.

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Section III

Section III discusses strategies for implementing the ICSM. Suggestions for soliciting and for initiating change are also provided

CHAPTER 14

CONCLUSION: PUTTING IT ALL TOGETHER

CHAPTER 14
CONCLUSION: PUTTING IT ALL TOGETHER

Congratulations! You have survived those first awesome days of figuring out what and how to teach—and you have survived this manual! You may decide it is a toss-up as to which caused the most wear and tear. The goal was to share with you a field-tested, viable instructional process that enables individuals with severe handicaps to participate in a variety of critical activities in present and future natural environments. The goal was not to overwhelm you, to make you feel guilty about your efforts, or to inspire super teachers who will implement every written word by the time the first yellow bus rolls up on Monday.

Hopefully enough information and examples are provided to enable you to consider and implement a critical skills model. Like any model, the ICSM is an example. It can be replicated in its entirety or modified to meet specific needs. Whatever you decide to do, do not attempt to implement every suggestion on the first day or even the first few weeks. The implementation of the information in this manual should be considered a long-range goal, accomplished through small, prioritized steps. Later in this chapter, ways are discussed to help you survive during the change process.

STARTING OUT

For those of you who feel the need to get started immediately, three steps are suggested. These three steps (a "short list" of things to do) are absolutely essential, regardless of whether or not you follow the other practices in this manual.

First, critically evaluate your current philosophy of education. This is the "why" of teaching. What is most important to you? Can your philosophy be improved? Ask yourself what impact you want your teaching to have on the quality of your students' present and future lives. You want to end up with an educational philosophy that will tie together both instruction and curriculum—the "how" and "what" of teaching. (The evaluation checklist that appears later in the chapter may prove a useful tool to looking long and hard at your philosophy of teaching.) Second, maintain or develop systematic methods for teaching and recording performance information. The combination of a sound educational philosophy with systematic instructional methods for teaching and recording behavior will anchor your program as you modify its components. Third, conduct at least one Significant Other Interview. This interview has proven to be an amazingly valuable tool and will help you more than any other single assessment or "curriculum guide" in determining what and how to teach.

These three steps will get you started, and from there, the specific needs of your students and parents will guide you. But despite your desire to hit the ground running, putting the ICSM in action consists of both short sprints and long treks. The experience of others who have gone before you suggests that a slow and careful approach is more effective—and probably more compassionate—than jumping feet first into the fray.

IMPLEMENTING THE ICSM

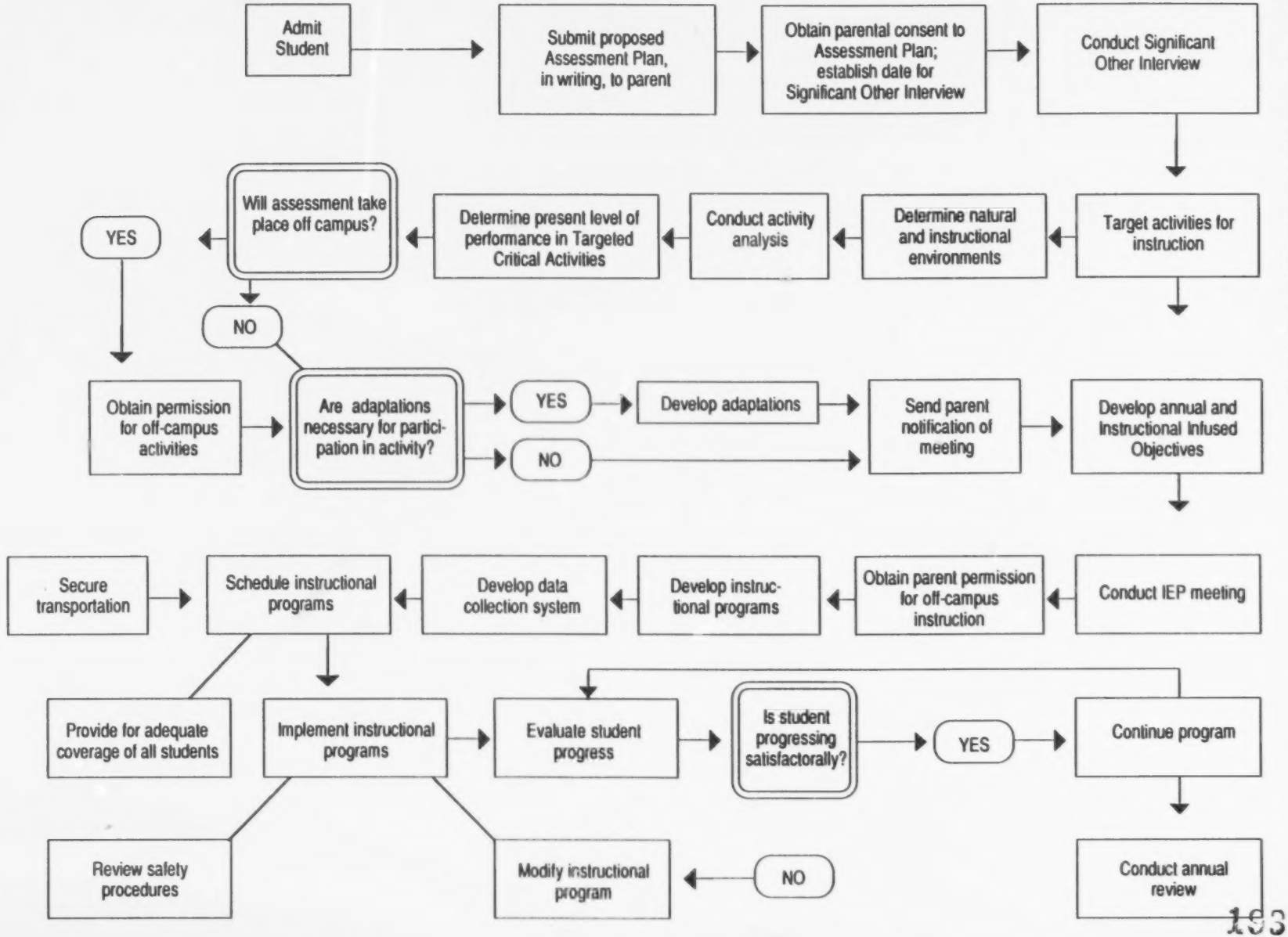
Now we will look at various topics that will help you implement the ICSM: an overview, in flowchart form, of the relationship of each phase of the ICSM; a checklist that lets you evaluate, over time, your effectiveness; guidelines for surviving the rigors of changing over to new systems; how to generate cooperation and support for your programs; how to develop a realistic plan of action; how to develop a proposal for administrators; and, finally, how to put together a task force to help you implement change. It should be obvious that these topics do not exhaust the subject of how to implement the ICSM—but they address the most common concerns of teachers who suddenly find themselves confronting a seemingly formidable status quo.

Flowchart

Before you begin to implement the ICSM, it helps to have a clear picture of the entire process. A flowchart showing the relationship of each phase to developing and implementing a critical skills model is shown in Figure 14.1.

FIGURE 14.1

Implementing the ICSM



Instructional Process Evaluation

When judging the effectiveness of a current curriculum or instructional techniques—or of new ones—systematic evaluation lets you know how and why things are happening. By reviewing your overall program you may determine that students are not participating much in critical activities in future environments and in fewer than all four domains in present environments. You may also despair because you feel that you're working tremendously hard and thought you had all your bases covered. Why, then, aren't you seeing the growth in your program you had assumed was occurring?

The answer could be that you are unintentionally overlooking one or more components of the instructional process. The ICSM is a *systematic* instructional process. As such, each component of the process plays an integral and essential part in the overall working of the *system*. When one component is weak, the system becomes weak. You may find it helpful to evaluate yourself on the following ICSM Systematic Instructional Checklist. Read each statement, and jot down a "Yes" or "No" response. For each "No' you may wish to review the information on that component, determine why that component is not successful, and then plan steps which will help you reach your goal. Evaluate yourself every few months to monitor your own progress.

ICSM SYSTEMATIC INSTRUCTIONAL CHECKLIST

	Dates
☐ I determine my students' instructional needs by conducting Significant Other Interviews.	_____
☐ I determine my students' needs in basic skills.	_____
☐ I prioritize activities targeted for instruction by taking into account parent preference, functional nature of the activity, and chronological age-appropriate nature of the activity.	_____
☐ I conduct inventories of identified present and future environments in domestic, community, recreation/leisure, and vocational domains.	_____
☐ I determine the skills needed to perform the targeted activities in specified environments.	_____
☐ I determine my students' present level of performance in targeted critical activities.	_____
☐ I develop adaptations for participation in critical activities when needed.	_____
☐ I plan at least two instructional objectives in each curricula domain.	_____
☐ I write infused objectives.	_____
☐ I develop instructional plans for targeted activities.	_____
☐ I implement instructional programs in natural environments.	_____
☐ I collect and evaluate student performance data.	_____
☐ I modify instructional programs based on performance data.	_____
☐ I evaluate overall student progress by following up on IEPs.	_____

Surviving the Transition

Implementing the curriculum you want involves making changes. Change is a long process and cannot happen overnight. The instructional methods described in this manual are not cure-alls or easy answers. Like all worthwhile endeavors, they require commitment and much energy. There are, however, some guidelines to help you keep your head above water and stay sane as you gradually make the changes you feel will be most beneficial to all concerned.

GUIDELINES FOR SURVIVING CHANGE

- **Move slowly!** Do not take on more than you can handle at once. That probably means implementing only one change at a time and becoming comfortable with that change before embarking on the next one. If you are completely revising what and how you teach, it may take an entire school year! If you are only modifying parts of your curriculum or instructional style, then the process could take less time.

- **Don't expect perfection!** Remember almost anything that can go wrong will. Learn to roll with the punches and have confidence in your own strengths and talents.

- **Get all the help you can!** Utilize available volunteer and school personnel. With minimal training these people can be an invaluable help with instruction and supervision so that you may turn your attention to other necessary details.

- **Be accountable for your time!** Develop a schedule. Provide a general framework for students and staff to work in. List each staff member's responsibilities and each student's goal. Everyone is more comfortable when they know where they should be, when they should be there, and what they will be doing.

- **Keep records!** Keep accurate data on each student's progress. Effective educational decisions can only be based on objective performance information.

- **Train your staff!** Your aide, volunteers, and ancillary staff must all be aware of the teaching strategies you are using with each student. Consistency is critical to quality.

- **Establish open lines of communication!** Let parents and staff know you are concerned about them as well as the students. Be an understanding listener.

- **Leave the job at work!** The challenge of providing quality instruction for your students can be overwhelming. You need other outlets or involvement to help keep things in perspective. A good night's sleep is usually better than a predawn strategy and planning session!

- **Talk with others!** Share your ideas and concerns with other professionals who have similar goals. Two heads are always better than one, and three heads are better than two! You can support each other in your efforts, while gaining new insights and perspective.

It is natural to feel anxious when embarking on a new way of doing things. If implementing a new critical skills model represents an approach that is quite different from one you presently employ, then some of the changes you may want to make could be fairly substantial. There are a number of things you may want to do to make the change as comfortable, productive, and efficient as possible.

Generating Cooperation and Support

For the ICSM to be successfully adapted and adopted within your school district, you will need the cooperation and support of a number of individuals within and outside the educational system. You, in turn, will need to be cooperative and supportive of others. By determining your needs and the needs of others, and by developing mutually productive relationships, you can guarantee everyone's commitment and success in implementing the ICSM.

You can start by generating lists of people whose support you will need. This list should include administrators, parents, and support personnel. If there are other teachers at your site or in your district who are also interested in implementing the ICSM, work together on this task.

You should also list the type of support that administrators and parents will need. For example,

administrators and parents will need to know about the ICSM so they can compare pros and cons of the present curriculum and proposed curriculum. Administrators will want to know about the logistics, and so on.

Developing an Action Plan

Once you have determined whose support is needed, develop an action plan to involve those people in the changes you want to make. (Again, when possible, work with other interested teachers. The group experience make the job easier and provides an opportunity for sharing ideas.) The action plan should state what needs to be done, who is responsible for doing it, an estimated time for the task to be completed, and a means to determine when the task is done.

Action Plan for Involving Others in ICSM

- **Identify who you need to communicate with at this time.** (Be mindful of the administrative hierarchy within your district). Your communication efforts to develop mutual support will probably focus on administrators and parents or care providers.
- **Determine the overall purpose of the communication.** (Example: to inform about the ICSM and to identify mutual needs).
- **Set out the specific points to be made during the communication.** (Example: purpose of the ICSM, major variables of the model, benefits of this curricular approach).
- **Decide who is responsible to undertake the specific communication and who can assist in the preparation of the meeting(s). Determine when the specific task will be completed.** (Set reasonable deadlines.)
- **Set up the meeting(s) and deliver the communication.**

Developing a Proposal for Administrators

You may find it necessary to develop a proposal to present to your district administrators. This will very likely be a new experience for you. Let's say, for example, you wish to resolve logistical concerns for implementing a community-based program. The following guidelines may be of help.

Your proposal will explain specific logistical considerations, the rationale or background for the proposal, the intended results, the present "haves," concerns, needs, various options to meet those needs, and actions best suited to resolve the specific considerations.

For convenience, develop the proposal in a series of steps:

1. **Briefly explain** specific logistical considerations.
2. **Give a brief rationale or background** of why it is important to resolve logistical consideration. (Cite pertinent State Education Codes.)
3. **Specify intended results.** In relation to your logistical considerations, determine specific outcomes in measurable statements. (For example, "There is one car at Orange School available for community-based instruction.") Be thorough in specifying results. Make sure all aspects relating to the concern have been discussed and specific outcome statements developed.
4. **List "haves."** In relation to each specific intended result, list the resources, documents, policies, equipment, and so on, which are presently in place (For example, "We have a principal who supports community-based instruction.") If you are uncertain of possible "haves" (for example, you are uncertain about present district policy regarding teachers using their own cars to transport students), note this and incorporate it into Step 6 of the proposal.
5. **List concerns.** In relation to your specific results, list the concerns, fears, worries, and complaints that you feel may be potential obstacles to producing the intended results. (For example, some parents may be reluctant in allowing their child to participate in chronological age-appropriate activities in natural environments.) Make sure all concerns are voiced at this time.
6. **List needs** (discrepancies between intended results and haves) which are the missing pieces in the formula. Needs include resources, approval, personnel, policies, and so on. (For example, "We

need to inform all parents about the individualized, critical skills, chronological age-appropriate curriculum.") Convert any concerns (listed in Step 5) into need statements. (For example, "We need to develop a support system for reluctant or fearful parents.") Some concerns may remain as potential obstacles at this time.

7. **List various options** to meet those needs. How have other teachers or districts dealt with similar problems? You want this catalogue of options to be brief, but it should include all major approaches.

8. **Identify the actions** best suited to meet identified needs and to solve problems in logistics.

9. **Name the people involved** in the development of the proposal.

10. **Plan for several drafts** of your proposal. You do not have to produce a heavy, intimidating document, but you should make sure you have stated your case as clearly as possible.

11. **Submit your proposal.**

Administrative and parent support is the backbone of any successful educational program. It is crucial that they are kept well-informed and function as integral members of your planning team. With their sanction, almost all things are possible. It is also important to be sure that your governing board is kept well-informed of your intentions. This is not only good practice from a public relations point of view, but necessary because their ruling on liability and logistical issues will dictate the parameters of your program.

Task Force

Many teachers have reported success using a task force approach to implement a critical skills model. The task force can comprise as few as two interested members or as many as 25. Membership should include those interested in implementing a critical skills model and could include teachers, assistants, administrators, support personnel, and so on.

Each task force will have to determine its own agenda. The objectives of the group will depend on individual and group needs and is very group-specific. It would be unrealistic to prescribe a particular course of action. At some point, however, you will probably want to discuss the following issues:

- Determining present policies and procedures of your district or agency
- Identifying concerns you may have implementing a critical skills model, such as:
    1. logistical considerations
    2. class coverage
    3. transportation
    4. financial impact
    5. liability issues
- Brainstorming possible solutions to identified problems
- Submitting a proposal to administrators and board members
- Following up on the proposal
- Developing a department philosophy and procedural guidelines

An appropriate approach to solving these issues would be to set agendas, time-lines, and action plans. Groups function more efficiently when roles and expectations are spelled out. Establish a regular meeting time and a general purpose for the group. Voluntary membership will guarantee committed workers. No one benefits from an unwilling or grumbling co-worker. Learn to use each member for their strengths and have everyone, including yourself, only take on responsibilities they feel comfortable with. Rome wasn't built in a day—and neither will be your new curriculum.

Don't be discouraged if you don't have a group to belong to. "Lone wolves" still can get things accomplished. You may start first by setting aside time during the day to talk with your assistant(s). Form your own small task force. You may attempt to network with teachers at other sites or even other districts. The enthusiasm for and commitment to a critical skills model is contagious. You will soon find compatriots in your area with whom you can share concerns, suggestions, and joys!

We congratulate you on your commitment to change and wish you well in all your professional endeavors.

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APPENDICES

GLOSSARY

Adaptations
Alternative strategies, materials or devices which allow an individual to participate in activities in natural environments.

Basic skills
Actions or general behaviors which contribute to a larger action and which are common to a number of skills and activities both within and across a variety of environments.

Chronological age-appropriate activities
Those activities performed by nonhandicapped age peers in natural environments.

Consequence
An action that follows a response and serves to increase or decrease the likelihood of that response occurring again. Natural consequence: Consequent events that occur naturally as part of the activity. Instructional consequence: An artificial consequence used when teaching a skill or activity.

Correction procedure (or instructional correction procedure)
An instructional strategy that provides the student with corrective information in the form of an instructional prompt after the student has either failed to make an initial response or made an initial response that is inaccurate.

Critical skills
Those relevant, essential skills that are deemed important by all significant individuals in the student's life and that increase the student's participation in chronological age-appropriate activities in present and future natural environments where the student will live, work, recreate, and interact with nonhandicapped individuals.

Cue procedure (or instructional cue procedure)
An instructional strategy that allows the student to participate in natural environments through the delivery of a consistent level of prompt prior to the student exhibiting the desired response.

Duration
How long a behavior occurs.

Environments
The places where people live, work, shop, recreate and interact with others. Present environments: Environments where students currently participate. Future environments: Environments in which individuals could participate. Natural environments: Places where nonhandicapped individuals live, work, shop, recreate, and interact with others. See also Subenvironments.

Frequency
How often a behavior occurs.

Future environments (See Environments.)

Generalization
The probability that skills learned in one setting will be successfully performed in other settings requiring similar skills.

Infused objectives
Instructional objectives that focus on the acquisition and generalization of critical activities and skills in natural environments and, when appropriate, include instructional needs in basic skills areas.

Instructional correction procedure (See Correction procedure.)

Instructional cue procedure (See Cue procedure.)

Instructional stimulus (See Stimulus.)

Modeling (See Prompt.)

Modification Criteria
A predetermined objective value of student performance, above and below which modifications in the instructional program are indicated.

Natural consequence (See Consequence.)

Natural stimulus (See Stimulus.)

Present environments (See Environments.)

Prompt
Any added assistance that will bring about a correct response. Prompts occur on many levels. Indirect verbal prompt: Covert or implicit verbal statement. Gestural prompt: Physical, nonverbal motions or movements. Direct verbal prompt: Specific verbal directions. Modeling: A demonstration of actions that are expected. Physical

prompt: Physical assistance which allows the individual to complete the desired response. Within stimulus prompt: Features added to the stimulus which will occasion the correct response. Visual prompt: Visual cues, such as pictures or drawings.

Punishers
Consequent events that decrease the response they follow.

Rate
How fast a behavior occurs.

Reinforcers
Consequent events that increase the response they follow.

Response
Behavior that follows specific stimulus events.

Significant others
Those individuals outside the school who have an influence on, or daily interaction with, the student and the family of the student.

Skills
The sequence of behaviors needed to perform or participate in an activity.

Stimulus
An event which causes or cues a response to occur. Natural stimulus: Stimulus events normally occurring in the environment. Instructional stimulus: Artificial stimulus events added to elicit a desired response.

Subenvironments
Areas where components within an activity take place. See also Environments.

WORKSHEETS

Worksheet 1	Parent/Care Provider Interview Coversheet
Worksheet 2	ICSM Community Inventory
Worksheet 3	Weekday Schedule
Worksheet 4	Weekday Schedule cont'd
Worksheet 5	Additional Weekday Activities
Worksheet 6	Weekend Activities
Worksheet 7	Behavioral and Basic Skills Information
Worksheet 8	Behavioral and Basic Skills Information cont'd
Worksheet 9	Behavioral and Basic Skills Information cont'd
Worksheet 10	Parent/Guardian Preference: Future Activities and Environments
Worksheet 11	Initial Summary/Infusion of Basic Skills and Critical Activities in all Curricular Domains
Worksheet 12	Future Contacts
Worksheet 13	Additional Significant Other Interview
Worksheet 14	Prioritizing Critical Activities for Instruction
Worksheet 15	Critical Activities and Environments Targeted for Assessment and Instruction
Worksheet 16	Activity Analysis
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Worksheet 18	Training Environment Checklist
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Worksheet 23	Grouping Students by Training Environments
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Worksheet 27	Individual Instructional Management Worksheet
Worksheet 28	IEP Follow-Up
Worksheet 29	Critical Activities Record

WORKSHEET 1

Parent/Care Provider Interview Coversheet

Student: _____

Birthdate: _____

Address: _____

Phone: _____
Home Work

Directions to place of interview: _____

_____

_____

Parent/Care Provider Name: _____

Interview Date: _____

Significant Others: _____

Interviewers: _____

D.I.S. Assessment:

A.P.E.: _____

Psychologist: _____

Speech: _____

Other: _____

Medical Considerations: _____

_____

Additional Services Providers (Regional Center, CCS, etc.): _____

_____

_____

WORKSHEET 2
(Before and After Interview)

ICSM COMMUNITY INVENTORY

Domain: _____ Transportation: _____

Environment: _____ Inventoried by: _____

Address: _____ Date: _____

_____ Contact Person: _____

Telephone: _____

General Notes: _____

_____

ICSM COMMUNITY INVENTORY

Domain: _____ Transportation: _____

Environment: _____ Inventoried by: _____

Address: _____ Date: _____

_____ Contact Person: _____

Telephone: _____

General Notes: _____

_____

ICSM COMMUNITY INVENTORY

Domain: _____ Transportation: _____

Environment: _____ Inventoried by: _____

Address: _____ Date: _____

_____ Contact Person: _____

Telephone: _____

General Notes: _____

_____

WORKSHEET 3

Weekday Schedule

Student: _____

List information from the time the student gets up and goes to school to arrives home from school and goes to bed.

Envir.	Sub-Envir.	Activity	Approx. Time	C. A. App.	Description of Student's Performance in Activity	Pref. H,M,L	Comments

WORKSHEET 4

Weekday Schedule (con't)

Envir.	Sub-Envir.	Activity	Approx. Time	C. A. App.	Description of Student's Performance in Activity	Pref. H,M,L	Comments

Additional Weekday Activities

WORKSHEET 5

Student: _____

List any activities that occur throughout the week (M - F), but **NOT ON A DAILY BASIS.**

Envir.	Sub-Envir.	Activity	Approx. Time	C. A. App.	Description of Student's Performance in Activity	Pref. H,M,L	Comments

WORKSHEET 6

Weekend Activities

Student: _____

List any activities that occur regularly.

Envir.	Sub-Envir.	Activity	Approx. Time	C. A. App.	Description of Student's Performance in Activity	Pref. H,M,L	Comments

WORKSHEET 7

Behavioral and Basic Skills Information

Student: _____

What Activities does _____ like to do? Does not enjoy doing? How does he/she let you know?
(student name)

What foods does _____ enjoy eating? Does not enjoy? How does he/she let you know?
(student name)

What types of interaction does _____ enjoy? Does not enjoy? How does he/she let you know?
(student name)

WORKSHEET 8

Behavioral and Basic Skills Information (cont'd)

Describe how _____ behaves in each of the following areas (only if appropriate for particular students):
(student name)

Eating:

Communication (receptive):

Communication (expressive):

Toileting:

Mobility:

Behavior:

How do you handle inappropriate behaviors?

WORKSHEET 9

Behavioral and Basic Skills Information (cont'd)

What things are important to you or other family members regarding _____ that we have not talked about yet?
(student name)

Medical Considerations:

Medications used: _____

When: _____

Physician: _____

Allergies: _____

Other: _____

_____

WORKSHEET 10

Parent/Guardian Preference
Future Activities and Environments

Student: _____ Date: _____

1. List the activities that you would like your child to be doing in one, two or three years from now in each of the following areas (above dotted line). Where would these activities take place? (below dotted line). INTERVIEWER: Use your information from community inventory file and student's immediate neighborhood inventory to assist parents or care providers.

2. After completing list, have parents rank high, middle, or low preference for each activity. Circle the rating in the column next to the activity. Determine if the activity and environments are chronological age appropriate (Yes or No).

Domestic C.A. Y N PREF: H M L	**Recreation/Leisure** C.A. Y N PREF: H M L	**Community** C.A. Y N PREF: H M L	**Vocational** C.A. Y N PREF: H M L
C.A. Y N PREF: H M L	C.A. Y N PREF: H M L	C.A. Y N PREF: H M L	C.A. Y N PREF: H M L
C.A. Y N PREF: H M L	C.A. Y N PREF: H M L	C.A. Y N PREF: H M L	C.A. Y N PREF: H M L

WORKSHEET 11

Initial Summary/Infusion of Basic Skills and Critical Activities in all Curricular Domains

Key

P — Parent
ST — Speech Therapist
OT — Occupational Therapist
PT — Physical Therapist
T — Teacher
PE — Adaptive Physical Ed Instructor
A — Additional Staff

Student: _____

Date: _____

	High Preference Activities:	Source	Future (F) Present (P)	Rank	BASIC SKILLS						
DOMESTIC											
REC/LEISURE											
VOCATIONAL											
COMMUNITY											

WORKSHEET 12 (After Interview)

Future Contacts

1. Note additional important comments made by parents / care providers during summary or closing of interview.

2. Other possible SIGNIFICANT INDIVIDUALS to contact:

Name: _____ Relation: _____ Permission granted: _____

Address: _____ Telephone: _____

_____
City State Zip

Name: _____ Relation: _____ Permission granted: _____

Address: _____ Telephone: _____

_____
City State Zip

3. Next contact with parents / care providers regarding goals and objectives will be:

Date: _____ By phone? _____ yes _____ no

Time: _____ If no, place: _____

Specific Notes for Next Contact: _____

_____

_____

_____

WORKSHEET 13

Additional Significant Other Interview

Student: _____

Use this worksheet when interviewing individuals besides parents/care providers. Make sure permission has been granted.

Significant Other: _____ Relation: _____
name age

Questions/Points to Make	Response/Comments by Significant Other
1.	
2.	
3.	
4.	
5.	
6.	
General Comments/Further Contacts:	

WORKSHEET 14

Prioritizing Critical Activities for Instruction

Student:_____ Date: _____

Using the four top-ranked critical activities in each curriculum domain that were deemed important by care providers, list each activity in the appropriate space below. Rate each question for each activity: 10 (High); 5 (Medium); 1 (Low). Total the ratings for each activity. Rank order activities within each curriculum domain. Higher total ratings will be ranked higher.

The Activity.....	DOMESTIC	RECREATIONAL	VOCATIONAL	COMMUNITY
1. A student preference?				
2. Could be taught using age-appropriate materials and environments?				
3. Allows the care provider's life to be better or easier?				
4. Allows the student to become more independent?				
5. Will occur frequently in a variety of environments?				
6. Has a high probability of being used in future environments?				
7. Expands the number of environments in which the student participates?				
8. Has a high probability of being acquired given the amount of instructional time and/or with appropriate adaptations?				
9. Increases interaction with nonhandicapped individuals?				
10. Increases participation in nonhandicapped environments?				
TOTAL				
RANK				

WORKSHEET 15

Critical Activities and Environments Targeted for Assessment and Instruction

Using information from Prioritizing Worksheet 14 and any additional teacher preference activities, list the tentative activities and environments targeted for instruction. Note if the activity or the environment is for present or future participation and if it is a Significant Other or teacher preference. If teacher preference, state the reason for the addition on the back of this worksheet. Communicate and negotiate all activities and environments with care providers and record their recommendations.

	Activity	Environment	Present (P) Future (F)	SO Pref. Teacher Pref.	Care Providers Recommendation	General Notes
DOMESTIC						
REC. / LEISURE						
VOCATIONAL						
COMMUNITY						

WORKSHEET 16

Activity Analysis

Activity: _____ Instructional Universe: _____

Generic Skills	Relevant Stimulus Variations	Relevant Skill Variations	Natural Criteria	Exceptions/Potential Errors

NOTE: Adapted from *Design of high school programs for severely handicapped students* by R. Horner, J. Sprague, & B. Wilcox, 1982, Baltimore: Paul H. Brookes Publishing Co. Adapted by permission.

WORKSHEET 17

ICSM Student Assessment

Student: _____ Activity: _____ Date: _____

Natural Cues	Steps in the Routine	Ability to Initiate and Use Natural Cues	Physical Participation	Social/Communicative Participation	Ways to Increase Participation

Recommendations:

Adapted from *Participation and competence: Designing instruction to increase initiation and performance* by K. Gee, 1989, Unpublished Manuscript. San Francisco State University. Adapted by permission.

WORKSHEET 18

Training Environment Checklist

Student: _____

Activity: _____

Date: _____

Environments

Circle:
N = Natural Environment I = Instructional Environment

Generic Skills and Range of Stimulus Characteristics	N / I	N / I	N / I	N / I	N / I	N / I	N / I	N / I	N / I	N / I	N / I

WORKSHEET 19

ICSM Instruction Plan Sheet
Activity/Objective Information

Activity: _____

Student: _____

Infused Objective: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Basic Skills: Procedures:

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

Day: M T W Th F Sa Su

Approximate Duration of Activity: _____

Natural Time of Occurrence: _____

Natural Environment(s): _____

Instructional Environment(s): _____

_____

Summary of Program Procedures: _____

_____

Adaptations: _____

_____

Behavior Management: _____

_____

Reinformcement Schedule: _____

Program Modifcation Criteria: _____

_____

Program Review Dates: _____

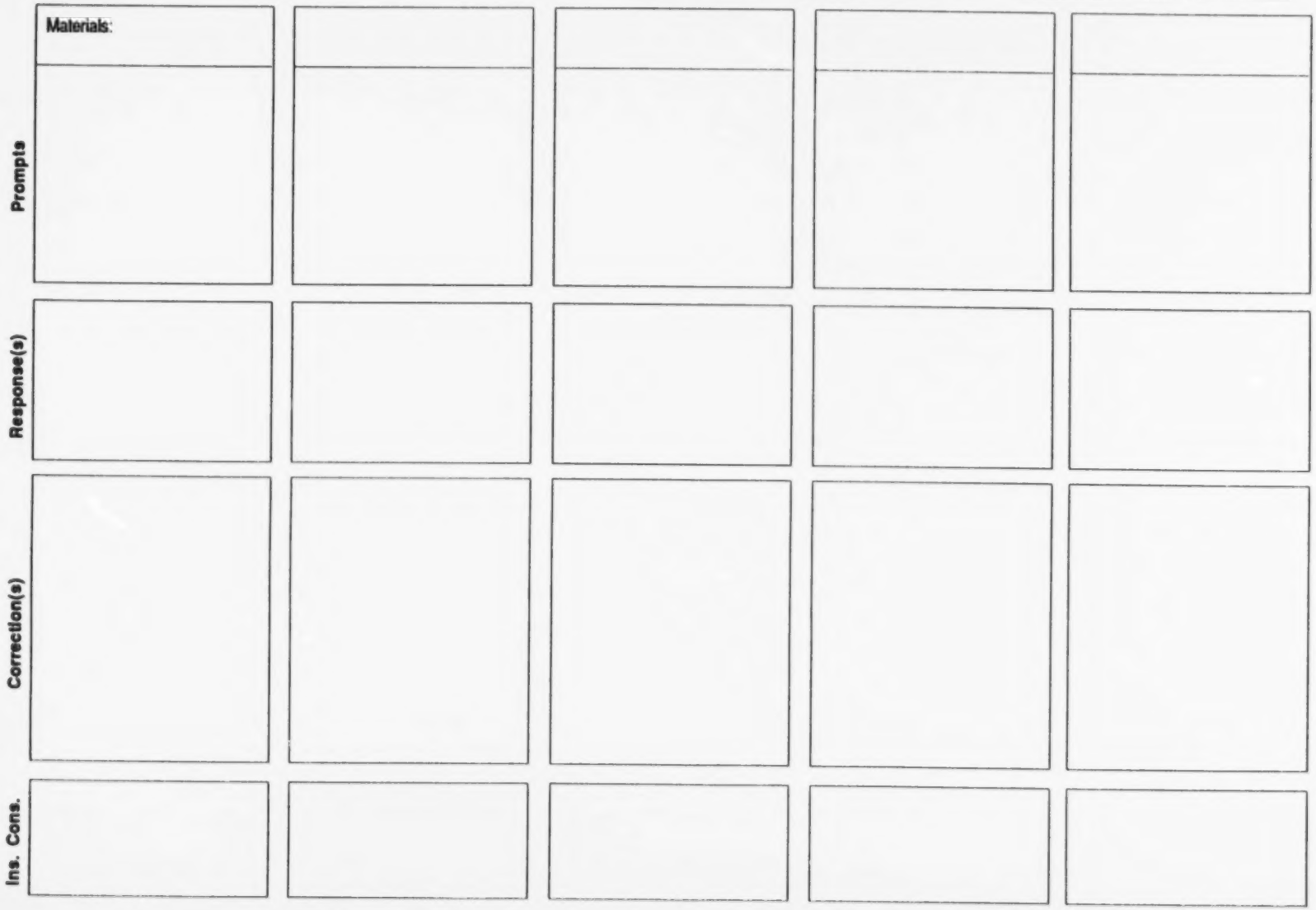
Trainer Proximity: _____

Probe Data: _____

WORKSHEET 20

ICSM Instruction Plan Sheet

Activity: _____ Student: _____



WORKSHEET 21

ICSM Intra-Activity Sequence and Data Collection Worksheet

Name: _____ Date Initiated: _____

Critical Activity _____

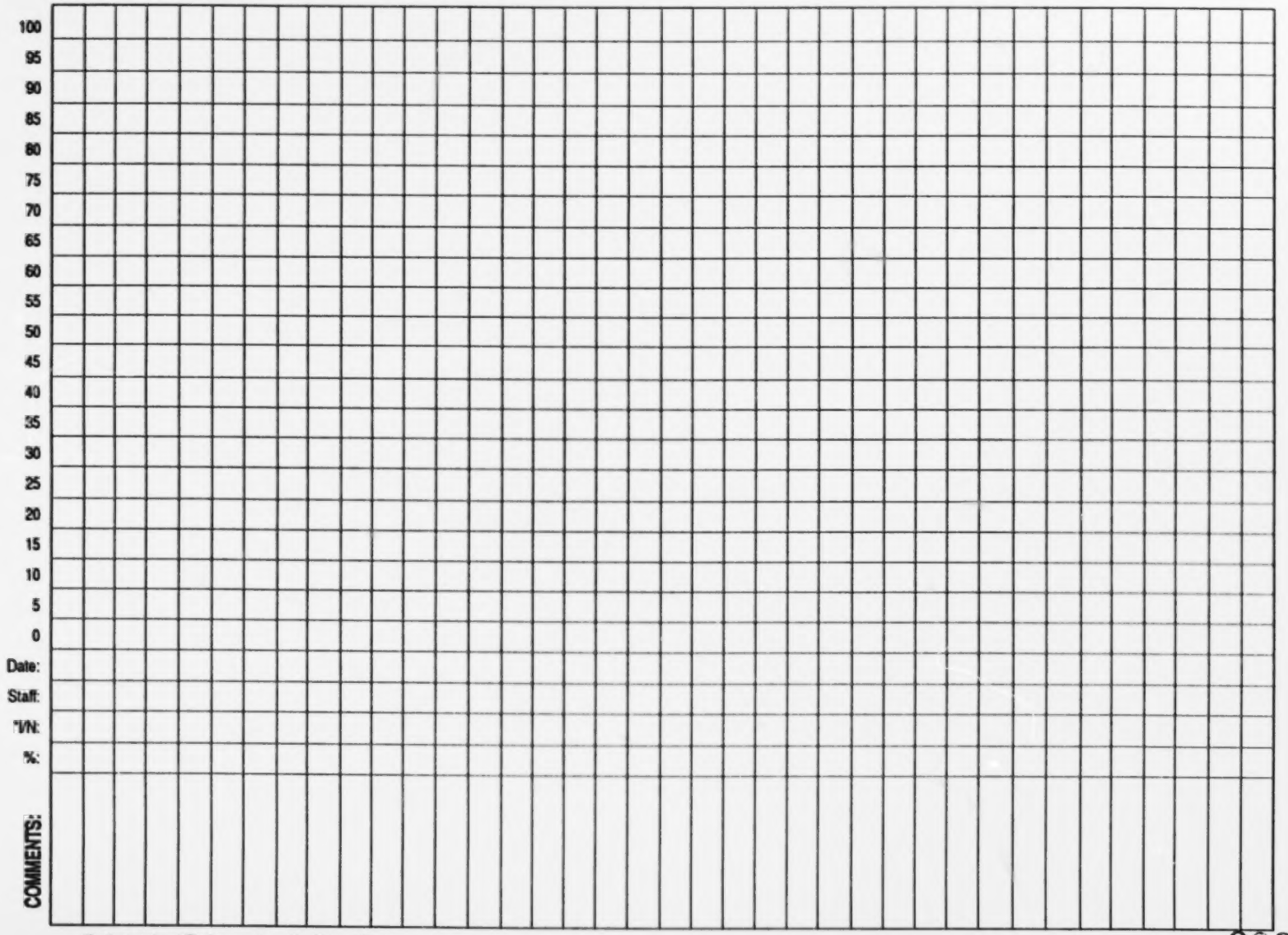
Date: Natural (N), Simulated (S) Environment:

Response/Response Variations																SUMMARY
SUMMARY																

WORKSHEET 22

ICSM Data Summary Graph

Student: _____ Activity: _____ Criteria for Success: _____



*I = Instructional Environments N = Natural Environments

WORKSHEET 23

Grouping Students by Training Environments

Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.
Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.
Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.	Env. _____ Student / Activity / Natural Tm.

WORKSHEET 24

Fixed and Flex Time Blocks

TIME BLOCKS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY

WORKSHEET 25

Master Schedule

Days of week: _____

Time Environment Trainers Student/Activity				

WORKSHEET 26

Individual Schedule

Student: _____

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY

WORKSHEET 27

Individual Instructional Management Worksheet

KEY:
√ = Actvity
no = No Opportunity
A = Absent
M = Maintenance

Student: _____

CRITICAL ACTIVITY/SKILL

DATE											COMMENTS

WORKSHEET 28

IEP Follow-Up

Student: _____

Parents / Providers: _____ Telephone: _____

Significant Other(s): _____ Telephone: _____

Curriculum Domain: _____

Critical Activity	Date	Has student performed activity?	How many times?	What sort of assistance was provided?	Do you need help?	Comments/Problems/Other critical activities in this domain?

Adapted from Wilcox, B. & Bellamy, T. *Design of high school programs for serverely handicapped students,* (1982). Paul H. Brookes Publishing Co. Reprinted with permissin.

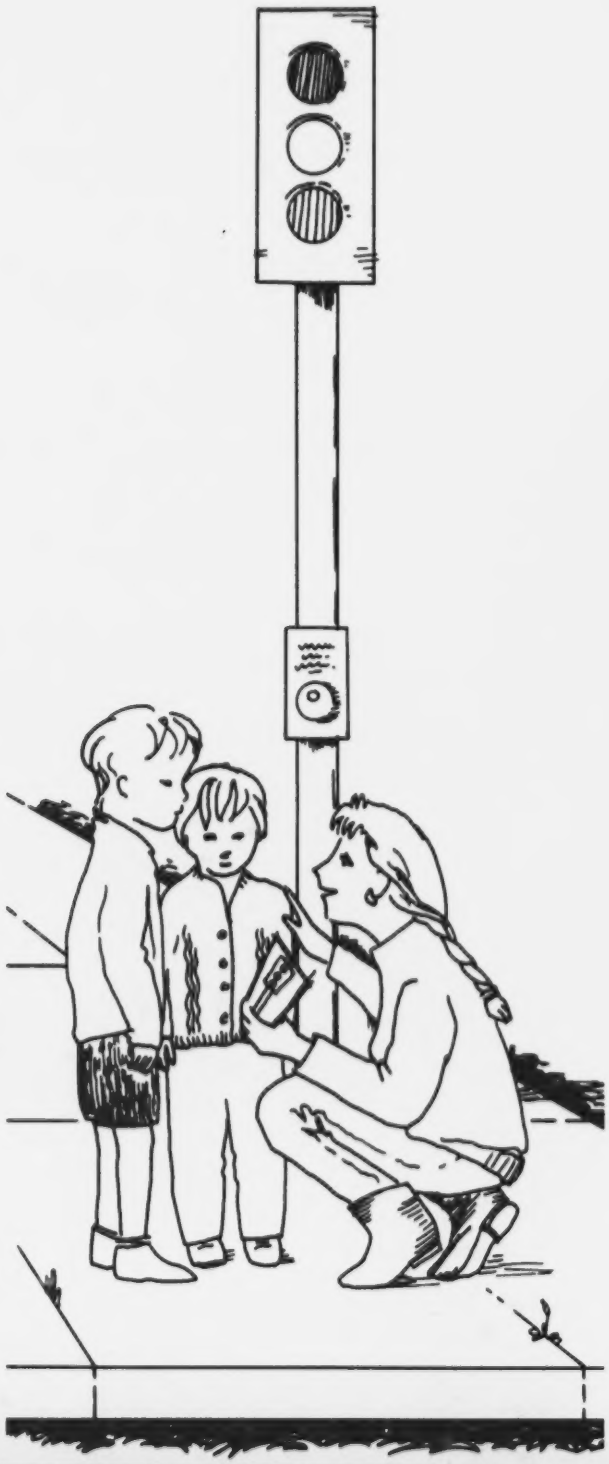
WORKSHEET 29

Critical Activities Record

Students: _____

Domain: _____

ACTIVITY	SKILLS	ADAPTATIONS	PERFORMANCE LEVEL	TRAINING RATIOS	DATE(S)	COMMENTS



TEACHING THAT WORKS: The Individualized Critical Skills Model (ICSM)

Expectations regarding the learning potential of individuals with handicaps have evolved and changed over the last two decades. So have the ways educators have chosen to teach. ***Teaching That Works*** offers integrated, age appropriate activities—developing skills in the natural environment that are relevant and essential.